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ABSTRACT

Based on the experiences of a job training demonstration project in five hospitals, the handbook describes a rationale and approach for using hospitals (rather than sheltered workshops) as job training sites for mentally and physically disabled persons. Part I reviews advantages for the hospital, the disabled person and his family, the rehabilitation community, and the taxpayer. The demonstration project is placed in historical perspective, and such issues as employer prejudice and opportunities for participant advancement are discussed. Part II outlines a five-step program implementation model: (1) obtaining hospital agreements to participate; (2) paving the way to begin (obtaining Department of Labor certificates, hiring site supervisor, preparing hospital staff, clarifying agency roles, and identifying and analyzing jobs); (3) bringing trainees aboard (referrals, interviews, selection, and placement, close supervision to prevent early failure, and determining compensation); (4) conducting on-the-job evaluation and training (including adjusting wages and monitoring coworkers' reactions); and (5) moving people to long-term employment. Part III describes costs and benefits to the individual and employer, cost effectiveness in relation to alternative job training, and ongoing mechanisms for cost-benefit analysis. Samples of practical tools such as letters of agreement, job analyses, and compensation formulas are included throughout. A glossary of about 35 terms is provided. (JW)

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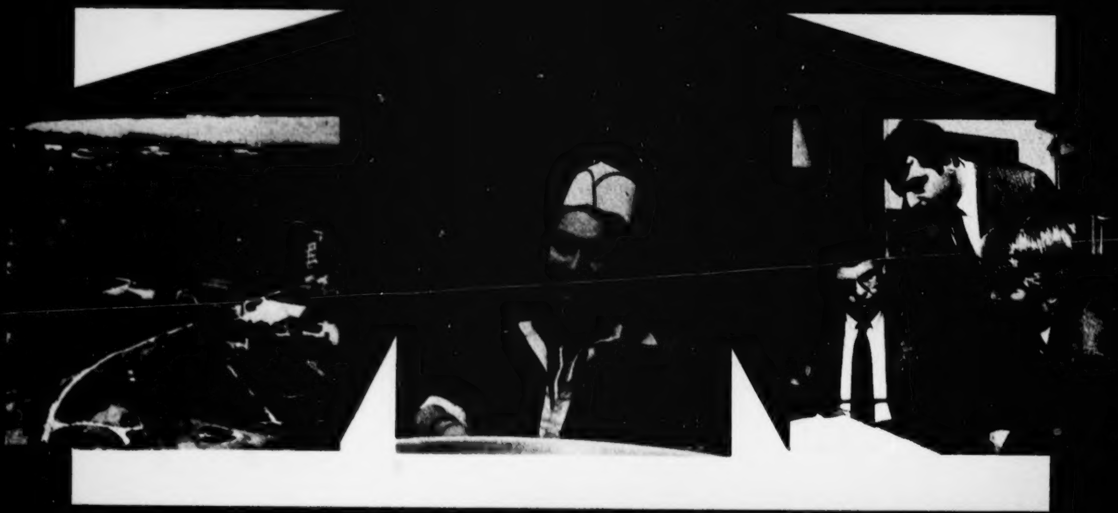
Hospital Industries Handbook

Using Hospitals As Job Training and Employment Sites For the Developmentally Disabled



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Maine Medical Center
Department of Rehabilitation Medicine
Portland, Maine

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Maine Medical Center

Maine Medical Center is a 533 bed voluntary, non-profit general medical and surgical hospital located in Portland, the largest city in Maine. It is governed by an uncompensated board of trustees with members duly elected to represent the community it serves.

Maine Medical Center is the largest hospital in Maine, and the third largest employer in the state. It provides the full range of medical services to its community and is the major referral center for Maine and parts of New Hampshire.

The hospital serves a population base of one million people and annually admits twenty thousand patients. Offered at MMC are services unavailable elsewhere in Maine: open heart surgery, kidney transplantation, advanced burn care, sophisticated high risk maternity and neonatal intensive care, and extensive cardiac diagnostic services.

Since its founding, the Maine Medical Center has been dedicated to three missions: *patient care* — the best possible health care services to all who seek treatment; *education* — support of and participation in health professions education at all levels; and *research* — basic and clinical biomedical research financed by sources other than patient revenues.

It is a member of several hospital consortia and committees to coordinate health care delivery. The Hospital Industries demonstration project, administrated by the Department of Rehabilitation Medicine, is one in a series of hospital efforts to promote public/private coordination. Established in 1965, the Department of Rehabilitation Medicine contains nine divisions including Occupational Therapy, Rehabilitation Counseling and Therapeutic Recreation.

Hospital Industries Handbook

Using Hospitals As Job Training And Employment Sites For The Developmentally Disabled

By
Richard M. Balser, *M.A., C.R.C.*
Department of Rehabilitation Medicine
Maine Medical Center

Foreword by
Jean K. Elder, Ph.D.

Contributions by
Michael P. Kotch
Helaine C. Hornby

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Maine Medical Center
Portland, Maine

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Project Staff were Richard M. Balser, Principal Investigator; Michael P. Kotch, Project Director; Dr. B. C. McCann, Medical Consultant; Margaret R. Queally, Project Coordinator; Rohn J. Spinella, Vocational Evaluator; Edward C. Scott, Bureau of Rehabilitation Consultant; Michael Tarpinian, Bureau of Mental Retardation Consultant; Helaine C. Hornby, Educational Writer; and Freda D. Bernotavicz, Media Specialist. Project Monitor for the Administration on Developmental Disabilities was Robert O. Wyllie.

Any opinions, conclusions or recommendations are those of the authors and do not necessarily reflect the view of the supporting agency.

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Additional copies available from:

Maine Medical Center
Department of Rehabilitation Medicine
Portland, Maine 04102
207 871-2463

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Foreword

The success of the Employment Initiative in filling jobs in the private sector with the developmentally disabled has been one of the most rewarding experiences of my tenure as Commissioner of the Administration on Developmental Disabilities.

When we launched the "Hire Ability" campaign early in 1984, there were those who believed that our target of 25,000 job pledges in one year was unrealistic. Commitments are approaching 40,000 jobs, with many more expected as a result of the outpouring of interest from employers across the country.

This is an outstanding example of what can be accomplished through public and private sector partnership. However, these job offers are not just part of the American tradition of giving a chance to our neighbors who need help. Employers have looked at the track record of the developmentally disabled and realized it is good business to hire these dedicated employees.

The developmentally disabled have traditionally been the hardest to place in competitive employment. In spite of multiple, severe disabilities, they have proven themselves to be capable, reliable workers. Their attendance record is good, turnover is low and morale high. Tax incentives are also an attractive inducement to companies to hire these workers.

The Maine Medical Center has piloted a project using hospitals as job training sites for persons with developmental disabilities. The *Hospital Industries Handbook* provides the reader with an insight into the movement of innovations from the place of development to regular, local service delivery. This handbook focuses on one approach to improving human services by providing you with current expertise in model development, standardization and replication.

I am confident that working together, we will build on this innovative, successful project and others and that employers everywhere will realize that hiring the developmentally disabled is good business. All Americans benefit each time one more person achieves independence and becomes a contributing member of our society.

Jean K. Elder, Ph.D.
Commissioner
Administration on Developmental Disabilities

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Further thanks go to the State of Maine's Bureau of Rehabilitation, and Mental Retardation. These agencies funded the first Hospital Industries grant to the Department of Rehabilitation Medicine at Maine Medical Center.

Individuals contributing to this project and book beyond the project staff include: Melvyn E. Attfield, Ph.D., Clinical Psychologist, Department of Rehabilitation Medicine; Robert F. Underwood, Director of Food Services, Michael W. Swan, Director of Housekeeping; Robert F. Gelinas, Staff Accountant; Charles P. Chandler, Jr., Director of Internal Auditing, and Margo Johnson, Hospital Intern, Maine Medical Center.

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Special recognition belongs to the Hospital Industries supervisors at each facility. These individuals have provided tremendous support for this program and contributed to its overall success.

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Maine Medical Center, Portland, Maine
Ms. Agnus H. Tyson
Ms. Joanna M. Childs
Ms. Debra S. Richardson
Ms. Martha E. Stone
Ms. Maureen E. Keeley

Henrietta Goodall Hospital, Sanford, Maine
Ms. Lois E. Goodwin

New Hampshire Hospital, Concord, New Hampshire
Mr. Carl J. Earnshaw

Mid-Maine Medical Center, Waterville, Maine
Ms. Margo Z. Ellis

The Aroostook Medical Center, Presque Isle, Maine
Ms. Marilyn L. Currie

Veterans Administration Medical Center, Jamaica Plain, Massachusetts
Mr. John T. Noland

Richard M. Balser
Principal Investigator
Department of Rehabilitative Medicine
Maine Medical Center
Portland, Maine

Preface

Who Should Read This Book

The purpose of this handbook is to describe a rationale and approach for using hospitals as job training sites for mentally and physically disabled people. The book grew out of the experience of the Maine Medical Center in Portland, Maine, and subsequently five other hospitals in Maine, Massachusetts, and New Hampshire. Under Maine Medical's leadership, those hospitals engaged in a demonstration project funded by the Administration on Developmental Disabilities, Office of Human Development Services, Department of Health and Human Services, Washington, D.C.. The federal sponsor provided guidance and support throughout the life of the project.

Maine Medical Center's initial experimentation with using hospitals to train the disabled took place in 1982 and 1983, while the national demonstration ran from September 1983 through February 1985.

To enhance the replicability of the demonstration, the five hospitals were chosen to represent the various kinds of facilities found in America: urban and rural; union and non-union; private and public. Three are organized as private hospitals, one is a state facility and one is a federal facility. Three are rural, two urban. Three are non-union, two union. They are Mid-Maine Medical Center, Waterville, Maine; Henrietta Goodall Hospital, Sanford, Maine; The Aroostook Medical Center, with facilities in Presque Isle, Fort Fairfield, and Mars Hill, Maine; New Hampshire Hospital, Concord, New Hampshire; and Veterans Administration Medical Center, Jamaica Plain, Massachusetts.

Demonstration Sites

Hospital	Public/Private	Union/Non-Union	Urban/Rural
Mid-Maine Medical Center Waterville, Maine	Private General Purpose	Non-Union	Urban
Henrietta Goodall Hospital Sanford, Maine	Private General Purpose	Non-Union	Rural
The Aroostook Medical Center Presque Isle, Fort Fairfield, Mars Hill, Maine	Private General Purpose	Non-Union	Rural
New Hampshire Hospital Concord, New Hampshire	Public Neuro-Psychological State Facility	Union	Rural
Veterans Administration Medical Center Jamaica Plain, Massachusettes	Public Federal Veterans Facility	Union	Urban

This handbook, and a complementary slide-tape presentation, are targeted to various audiences for a variety of purposes:

- ***Hospital Administrators*** — It is designed to stimulate hospital boards, administrators and other employers who may be considering participating in such an effort themselves;
- ***Rehabilitation Community*** — It is aimed at rehabilitation, mental health, and mental retardation agencies who wish to undertake a joint planning effort in their communities to get such a program started;
- ***Implementing Agency*** — It is geared toward the person or people responsible for getting the program started once the decision has been made to proceed;
- ***Hospital Supervisors*** — It is targeted to the middle managers and front line supervisors who will be in day-to-day contact with the trainees once the program starts.

The handbook lays out a program philosophy and rationale in Part I, and then walks through each step needed to implement it in Part II. The final section, Part III, contains a cost benefit analysis, which shows the qualitative as well as financial benefits that can accrue from this approach. Throughout the handbook examples and illustrations of practical tools such as letters of agreement, job analyses, and compensation formulas are provided while problems and pitfalls to be avoided are discussed.

Part I

Understanding the Rationale and Program Philosophy

"We tend to see people as clients or patients, but not as employees. We need to ask ourselves as professionals, are we genuinely interested in exploring if work is a possibility?"

In this part...

- Why Use Hospitals as Job Training Sites
- Natural Evolution or Radical Shift
- Key Issues Addressed by Approach

Why Use Hospitals As Job Training Sites

If Mark Gold had not already coined the phrase "try another way" it would be the perfect title for this book. For that's what Hospital Industries is all about when it comes to preparing disabled people for employment — trying another way. Use *actual jobs* to demonstrate people can do them. (Don't send them off to simulated training sites and have them spend hours putting pegs in boards.) Use *actual supervisors* to assess their productivity in relation to other employees. (Don't use supervisors with special, meaning lower, standards for the disabled.) Use *bonafide machinery* to show people how the machinery operates. (Don't borrow obsolete equipment discarded from industry which would be of no use today.) Have them wear *actual uniforms,* punch *actual timecards,* and get themselves to work on *actual buses.*

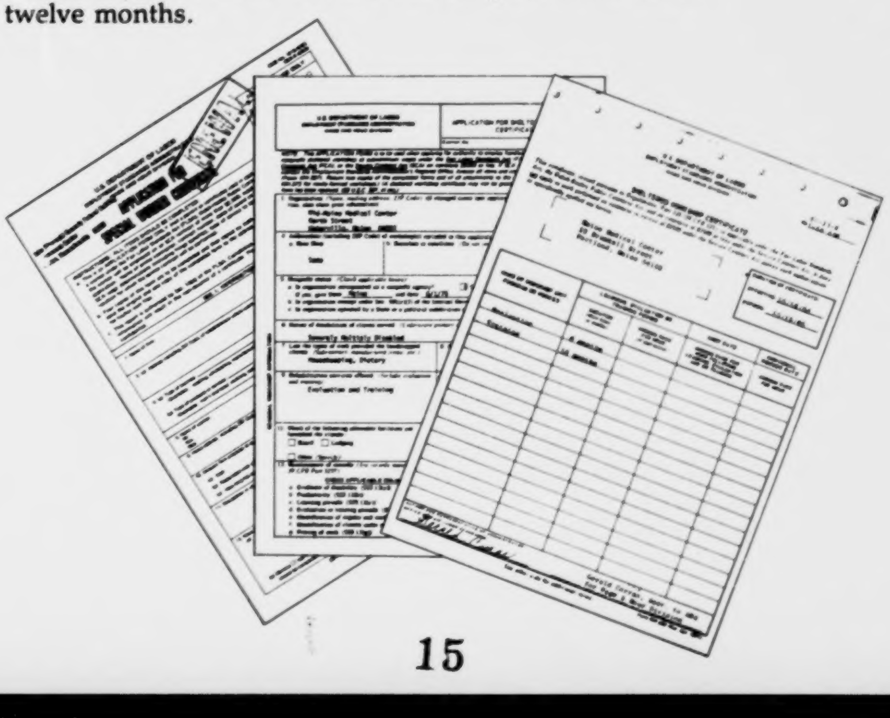
Maine Medical Center's model project, "Using Hospitals as Job Training and Employment Sites for the Developmentally Disabled," is a multistate demonstration which tries another way. It uses actual jobs in hospitals to train people to work competitively. Its purpose is to promote the economic self sufficiency of mentally and physically handicapped people by using private industry (in this case hospitals) instead of free standing sheltered workshops as centers for evaluating, training, and often employing severely disabled people.

Some of the model project's objectives are to establish sheltered work centers in public and private organizations, where people with multiple handicaps can be trained; to assist these people to develop transferable skills and work toward full-time employment; and to demonstrate to the employment community that disabled people can achieve equal productivity even if they have to share a job to do so.

How does the Hospital Industries Project (HIP) work? Essentially, the hospital develops an agreement with cooperating state agencies such as rehabilitation, mental health and/or mental retardation (this can vary from place to place depending upon the target population to be served) to provide positions in various hospital departments to be used as training slots for a rotating group of people. The agencies, in turn supply people for the jobs while guaranteeing that the work will be performed at the same or better standard established by the employer. They can make this promise because they jointly pay for a site supervisor who oversees all work.

Once people are screened and placed, the supervisor demonstrates the tasks to be performed, monitors the trainees' work and assures that quantity and quality are achieved (even if he or she must pitch in to help). The trainees become hospital employees on the first day and work at sub-minimum wages under Department of Labor (DOL) Certificates.

Initially a person is placed in the hospital under the DOL evaluation certificate; s/he is given specific goals and is trained to meet them through daily supervision by both the Hospital Industries and regular department supervisors. The evaluation period, which lasts up to six months, provides an opportunity to learn skills in a real work environment with appropriate role models and a mixed population. Every couple of weeks the employee and supervisor discuss the employee's progress. The individual then is placed under the DOL training certificate for a maximum of twelve months.



During this period the person is gradually phased out of constant supervision. By the end of the training, the individual should be ready to move on to other employment either within or outside the hospital, sometimes continuing at sub-minimum wage if productivity does not equal that of other workers. The training slot is then freed for a new person. The importance of hands-on job training is illustrated by the following quote from the *Small Business Report*.

To Do The Job Right

Proper job instruction can make the difference in whether or not a job is done properly. A study on job instruction showed relationships of a learner's ability to retain information. It revealed that a person will retain about 10% of what is read, 20% of what is heard, 30% of what is seen, 50% of what is seen and heard, 70% of what is said as the person talks, and 90% of what is said as the job function is carried out.

Small Business Report, June 1982

Each step in the Hospital Industries approach is detailed in Part II. But before proceeding to a detailed review of the activities and forms suggested for implementation, it is well for the reader to be convinced that the approach is valid and worth the start-up effort. The following sections respond to the question, why use hospitals as job training sites, by reviewing the advantages for the hospital, the disabled person and his family, the rehabilitation community and the taxpayer.

The Hospital

As shown by Pati (1982) and others, hiring the disabled, from the employer's stand point, is not an act of love or welfare. It is one that saves, rather than costs, institutions dollars. How can that be? Because when disabled people have been allowed to work, their employment records have stacked up favorably with the rest of the work force.

In the Hospital Industries model jobs and shifts are selected initially from areas in the hospital which have the highest absentee and turnover rates. The HIP Supervisor guarantees that the quality of work the people will provide is equal to or better than the hospital's regular work force doing the same job. Over time the hospital's departmental supervisor can confirm this by evaluating the employee records to compare absenteeism, tardiness, breakage or other measures normally used to assess the productivity of its work force.

Another reason employers benefit from using their institutions as job sites, at least if they follow the model described here, is that a supervisor is provided for all HIP employees during evaluation and training at no cost to the hospital. The supervisor's salary is paid by cooperating state bureaus such as mental retardation, mental health, and rehabilitation. For the bureaus, this approach is economically feasible because it compares very favorably to the high cost for job training they normally pay.

There are other monetary incentives for proprietary hospitals. Under the federal Targeted Jobs Tax Credit program authorized by the Economic Recover Act of 1981, as amended, and by the Tax Equity and Fiscal Responsibility Act of 1982, federal tax-paying employers are eligible to receive a $3,000 tax credit for employing handicapped individuals. Companies can claim a tax credit equal to 50 percent of the first $6,000 of a worker's earnings the first year and 25 percent the second year. The credits are subtracted from the tax the firm owes. Both profit and nonprofit hospitals are eligible to receive on-the-job training monies from state bureaus of rehabilitation. In this case the rehabilitation agency pays a percentage of the worker's salary during a specified training period, reducing the risk to the employer.

Once evaluation and training are complete, if the hospital wishes to hire the individual, and he or she cannot work as productively as a nondisabled counterpart, the employer may apply for a special workers certificate from the Department of Labor. This would allow the person to continue employment at a wage below the normal minimum if documented time studies demonstrate subminimum wage is justified.

''Hospital Industries is ultimately about substituting one work force for another...substituting the physically, mentally and emotionally impaired for the regular worker while maintaining quality job performance.''

The benefits employers can enjoy in this program are balanced by the real fear many possess of employing disabled people even for evaluation purposes. Seventy-seven percent of the nation's employers believe that hiring the disabled would be costly and detrimental to their companies.

Employers are concerned with the potential for high absenteeism, impaired productivity and higher insurance rates. Yet these concerns are unfounded. E.I. Dupont revealed that a high majority of disabled individuals achieve average or better ratings for job performance, safety and attendance. Regarding insurance, it found no increase in compensation costs and no lost time due to injuries as a result of hiring the handicapped. Further, 96 percent rated average or better in job turnover and 91 percent average or better in job performance (Steinhouser, 1978).

Contrary to myth, worker's compensation rates do not rise when the handicapped are employed (Wehman, 1981), group health plans and pension programs are not adversely affected, and prejudice towards the disabled diminishes after handicapped individuals are admitted to the work force. Co-workers and supervisors of disabled employees at a Virginia project, for example, responded favorably to surveys regarding competence and dependability of this work force.

Disabled Person and Family

And what benefits accrue to the disabled themselves? Psychological, physical, monetary and social advantages all head the list. In a 1977 speech before the U.S. Senate, Hubert H. Humphrey said, "The disabled, like other Americans, measure their success by their earnings, and their worth by their independence." Individuals participating in this kind of job training receive employee benefits and a consistent income. The program provides disabled workers a higher level of independence and a chance to develop social skills. The cost/benefit analysis conducted in one hospital (see Part III) showed that the 25 participants had a net earnings gain of over $13,000, even after Social Security benefits lost as a result of working were deducted.

The biggest boost, however, is to the employee's self esteem. One cannot begin to calculate the positive effects of owning a white uniform and a name tag indicating employment by a respected institution in town. Compare this sense of self worth with that of going to a stigmatized sheltered workshop everyday where there may be no inspiring role models and little hope for advancement.

Do the families of the disabled benefit? By all means. Many devote their lives to the care of their disabled family members believing they have no choice. Maine Medical Center's pilot project and similar efforts have shown that the developmentally disabled can perform at levels of competence and independence heretofore unimagined. This approach reduces the family stress by relieving care responsibilities for 20 to 40 hours a week.

In providing a paycheck to the employee, the program also relieves a financial burden, although occasionally families resist because they fear the individual may lose his Supplemental Security Income. This issue of family dependence is a complex one. But the demonstration projects showed that many more families were thrilled with the advantages than resisted giving up their care giving roles.

Rehabilitation Community

What is the reaction of traditional rehabilitation service providers? Perhaps a touch of jealousy. But also relief. Too many of this nation's previous job training efforts have been plagued by a mentality of vocational retardation precipitated by:

- restricted work environments
- low expectations
- limited evaluation options
- few role models
- non-integrated workforce

In traditional sheltered workshop programs professional staff spend numerous hours evaluating people, conducting assessments, running skills training programs and attempting to locate contract work for the workshop. The number of "slots" available in the program limits the number of people who can be trained and, although it may not be the intent of the sheltered job training program, those employed generally have no opportunity to advance.

Whitehead (in Bellamy, 1979) says that national studies of sheltered workshops in 1973 (DOL), 1975 (Greenleigh Associates) and 1976 (DOL) suggest that factors contributing to low productivity and earnings in sheltered workshops are:

- ***Severity and Nature of the Handicap*** — There is a trend toward fewer physically disabled and more mentally handicapped.
- ***Indequacy of Work*** — About two-thirds are employed in subcontract work, primarily simple bench assembly/packaging. Often there is not enough work.
- ***Little Technology*** — Few workshops have staff with industrial engineering backgrounds resulting in poor work organization and

operating inefficiencies. Most work is manual with little or no mechanization or use of modern technology.

- ***Limited Skill Training*** — Few clients receive training in personal/social skills or work performance.
- ***Financing*** — Public rehabilitation funds may be used to support rehabilitation services, and employment. Therefore workshop funds are often short-term and limited.

With limited slots and little opportunity for advancement, sheltered workshops tend to make long-term commitments to finite groups of people. According to Whitehead (as quoted in Bellamy, 1979) most clients entering workshops remain for extended periods of time. About one-fifth move on to competitive employment, the rest drop out or stay put. "This means that the workshop has a long-term responsibility for the economic well-being of a large number of severely disabled people." (Bellamy, page 75.) This situation must prove to be professionally frustrating for staff as well as personally limiting for the clients.

It is no longer economically feasible for each disability group (mentally retarded, physically disabled, and so forth) to have its own individual job training program. This model integrates clients from different agencies and with different disabilities on the assumption that individualized attention is provided at the point where the person's abilities are matched to particular jobs.

Using the Hospital Industries model, rehabilitation providers can stretch their resources by employing industry itself to provide job training. There are about 3,000 sheltered workshops in this country, but there are approximately 6,800 hospitals. The number of people who can be placed is not limited by the space in the workshop or the number of brooms for which a company will subcontract. Service jobs such as those used in hospitals will be needed in perpetuity. And reliable people, happy on the job, will save the time of professional rehabilitation staff.

In fact, the Hospital Industries approach makes the possibilities for finding job training slots almost limitless. The challenge to rehabilitation service providers comes when a disabled employee proves him/herself a capable worker at the job training site and is ready for employment elsewhere. The job developer is pressured to place the person once the obstacles of job readiness have been demonstrably removed.

Advantages of Hospital Industries Over Sheltered Workshops

- People who are not disabled are used as role models.
  In sheltered workshops everyone is disabled
- People perform real work
  In sheltered workshops tasks may or may not be real
- People are evaluated by supervisors responsible for non-disabled as well
  In sheltered workshops there are lower standards and performance expectations
- People work in a high status environment
  Sheltered workshops are low status
- People are eligible for raises, paid vacations and fringe benefits
  In sheltered workshops there are usually no benefits; payment is based on piece work
- The people's presence educates the institution's management and non-disabled workforce
  In sheltered workshops there is no hope for system change

Taxpayers

Several recent US Department of Labor studies set the number of employed disabled people in this country *who are able to work* at between 3.5 and 7.1 million. In addition, between one and three percent of the population, depending upon the definition used, is mentally retarded (Manpower Demonstration Research Corporation, 1982).

Even to live marginally an employed disabled individual requires a minimum of $5,000 from Public Welfare and Social Security Programs. With an estimated five million unemployed disabled, the annual cost to American taxpayers is $25 billion, approximately 3 percent of the total federal budget (Magee, Fleming & Geletha, 1981).

If employed at the minimum wage, these people would generate more than $35 billion in wages. When combined with tax savings, it means a $60 billion advantage to the economy (Ibid, page 21).

Research shows that for every $1 spent on rehabilitation, an average of $11 is paid back in taxes. Thus, any program that is successful in putting the unemployed disabled to work will benefit the nation both economically and socially. A program which does so at considerably lower cost than the traditional rehabilitation process will be even more noteworthy. And, as the cost/benefit analysis in Part III shows, Hospital Industries is far cheaper.

Natural Evolution or Radical Shift

Efforts at using business and industry as job training sites for the disabled date back to 1970, when the Rehabilitation Services Administration in the Department of Health and Human Services began its "Projects with Industry" initiative. The goals were to unite rehabilitation agencies with private employers; to help the handicapped adjust their attitudes and behavior to work requirements; to train handicapped people in specific job skills, and to place them in specific jobs.

According to Pati and Morrison (1982), the partnership between rehabilitation and industry is based on four assumptions:

- Actual work settings provide the most reliable areas for evaluating the skills of potential employees in preparing them for work.
- Employers need help in hiring and training handicapped workers.
- Employers are in the best position to identify jobs needing to be filled and requirements for those jobs.
- Instituting programs to employ the handicapped is in industry's best interest.

Examples of some of the successful Projects With Industry, said to number more than 100 nationally, include Pennsylvania Power and Light which recruited 12 part-time employees for the billing department from the Good Shepherd Vocational Center; the Electronics Industry Foundation which matches manpower needs in the electronics industry with disabled workers across the country; Control Data Corporation which runs a selective placement and rehabilitation program for its disabled employees; and Minnesota Mining & Manufacturing which runs a Disability Management Program for its workers.

As good as the aforementioned projects are, they differ from the Hospital Industries demonstration in several critical respects. Some are geared toward their own employees who have become disabled on the job; some focus exclusively on the physically handicapped, particularly amputees or those with spinal cord injuries; some use removal of physical barriers as their major intervention; and some merely supplement their benefits programs with counseling or stress management sessions designed to improve employee mental health and job performance.

Few address the integration of the disabled with the regular work force in the evaluation and training stage. And few, if any, allow immediate placement with wages for evaluation and training.

In addition to Projects With Industry, Wehman (1981) points out other encouraging trends in vocational programs, this time focusing on the mentally retarded: on-the-job training programs sponsored by the Association for Retarded Citizens of the US; various efforts by the AFL/CIO; and supported work programs in New York and Massachusetts.

Until recently the mentally retarded were considered largely incapable of caring for themselves (MDRC, 1982), leading to a public policy of caretaking and institutionalization. However, Peck, Appaloni & Cooke, (1981), show that more recent changes in education and rehabilitation laws have led to attempts at ''mainstreaming'' the mentally retarded, placing them in the most normal circumstances possible consistent with their needs and abilities. First came deinstitutionalization, then community-based care, and now full fledged efforts to integrate the disabled at the work site.

For example, Project Employability has placed workers at more than a dozen sites in Richmond, Virginia. Frank Rusch set up four nonsheltered programs in the Champaign-Urbana, Illinois area. Several high technology firms, many on the west coast, use the retarded to do assembly work. One company hires trainees when their productivity reaches 65 percent of a regular worker's output.

Restaurants and hotels are also moving with the trend. Companies such as McDonald's, Saga, ARA Services, Marriott, Holiday Inns and Sheraton collectively employ about 5,000 retarded individuals.

Despite these efforts MDRC (1982) says, "there is a large segment of the [mentally retarded] population which has the potential for more substantial development in training than currently takes place, and for placement in jobs requiring more ability. Sheltered workshops, vocational rehabilitation agencies schools and other providers...have been challenged as failing to provide such sufficiently varied and demanding work for this group" (page 5).

Thus, the Hospital Industries approach constitutes a natural evolution in job training and employment efforts for the phsically disabled. However, it represents a more significant shift for the mentally, emotionally, and developmentally disabled who have been largely excluded from normal work settings. It differs from most past job training efforts in three ways: it focuses on the severely disabled; it uses industry itself as the work evaluation and training site; and the participants are employees of the institution and thus paid by it from the first day as trainees.

Key Issues Addressed By Approach

In summary, this part has shown that the Hospital Industries approach addresses the following major issues:

Employer Prejudice

Employers and co-workers often have fixed perceptions of the abilities of mentally and physically handicapped people. Can they satisfy entry level job requirements? Will they be prone to accidents? Will they be late to work? Will they be unreliable employees? Many people confuse mental retardation with mental illness and emotional instability. Also developmentally disabled people are often viewed as "sick" and needing to "get well."

Therefore employers can be extremely reluctant to hire disabled people for traditional competitive positions.

The Hospital Industries approach overcomes employer prejudice by allowing a relatively small number of people into the work force under close supervision while demonstrating that their productivity and commitment to the job is equal to or better than other employees.

Private Sector as Trainer-Evaluator

In traditional programs vocational trainers are hired to impart specific skills to participants in a simulated setting. With this approach hospital supervisors play a significant role in setting job expectations and monitoring performance. Participants are evaluated in a real-world context from the beginning and need not face the trauma of transferring to competitive employment from a sheltered workshop or other simulated training site.

Participant Status

A stigma is attached to being a client of a mental retardation agency and working in a sheltered setting. With the Hospital Industries approach the participant obtains hospital identification and employee status the first day on the job even though still in evaluation and training. This psychological boost has been shown to enhance the job performance.

Job Market

With unemployment a perpetual problem, especially in rural communities where few jobs are available, traditional sheltered workshops and job training programs for the disabled have found it difficult to locate sufficient contract work or training sites to keep their clients employed. This approach overcomes the job market problem by selecting generally entry level positions in service industries where there will always be a need.

Government agencies, school systems, nursing homes, hospitals will always require cooks, dishwashers, launderers and maintenance people. Likewise, there will alwasy be a demand for printers, computer operators, bookkeepers and secretaries. Such positions are available in rural as well as urban settings.

Also this approach purposely selects jobs where turnover is high and absenteeism is a problem. Therefore, Hospital Industries works in tight job markets.

Cost of Operations

When using sheltered or other simulated job training sites, the training agency needs to pay for rent, fuel, maintenance and other fixed costs associated with operating a facility. With the Hospital Industries approach there are no separate facilities. Employers, like the hospitals themselves, absorb all the site operation costs, greatly reducing the expense of job evaluation and training.

Dead-ending Participants

In traditional workshops there is no place for participants to go even when they are performing adequately. The transition to competitive employment is difficult, at best, and often impossible. The Hospital Industries approach monitors the person's productivity against others performing similar tasks in a competitive situation. If productivity is not up to par, the hospital may keep the wages low accordingly. However, if the participant is performing equivalent to or better than other employees he or she can progress as others would. Thus the danger of locking people in to a specific level of productivity is removed with the Hospital Industries approach.

Summary

In this part we have presented the rationale for Hospital Industries; discussed the advantages for disabled workers, their families, employers, the rehabilitation community, and taxpayers; described similar job training efforts, placing this one in an historical context; and highlighted the key issues addressed by this approach. The next part focuses on program implementation.

Part II

Implementing the Hospital Industries Approach

"We can sell the employer on the same or better quality of work with the same or better attendance, turnover and safety..."

In this part...

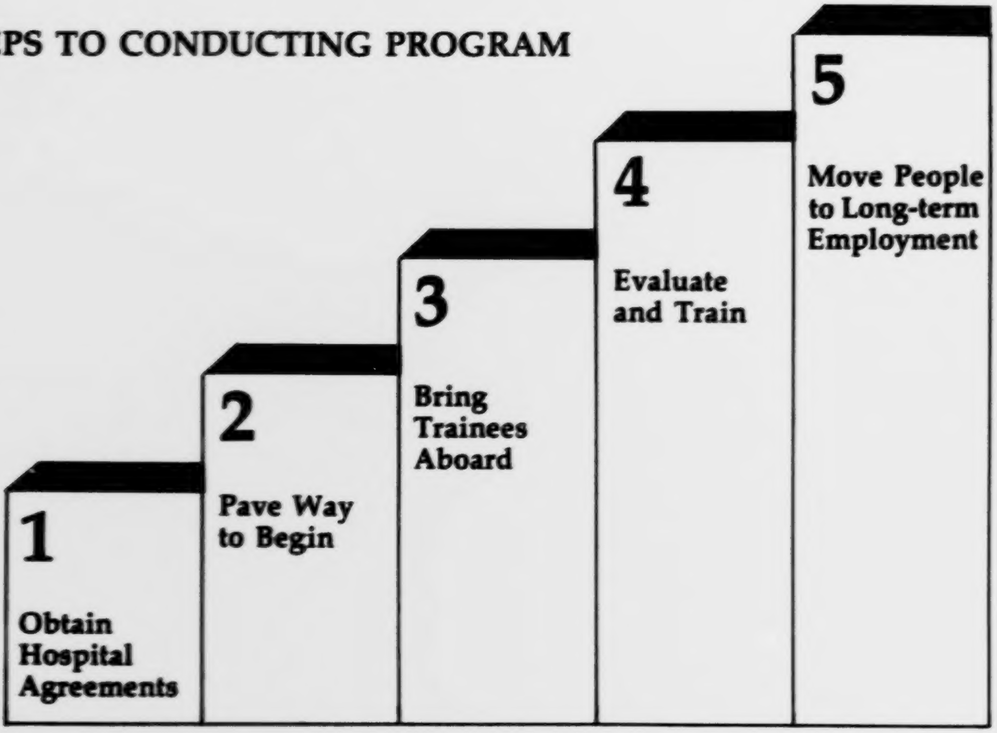
- Obtaining Hospital Agreements to Participate
- Paving the Way to Begin
- Bringing Trainees Aboard
- Moving people to Long-term Employment

What are the key components of the Hospital Industries model and what does it take to carry them out? There are five major elements to this approach:

- Obtaining the hospital agreements to participate
- Paving the way to begin
- Bringing trainees aboard
- Conducting evaluation and training
- Moving people to long-term employment

In this part we discuss each component, the difficulties entailed in implementation and present tools that may be helpful in administering the program.

STEPS TO CONDUCTING PROGRAM


1
Obtain Hospital Agreements
2
Pave Way to Begin
3
Bring Trainees Aboard
4
Evaluate and Train
5
Move People to Long-term Employment

Whose responsibility is it to implement the Hospital Industries approach? The impetus may come from one of many sources or a combination of them.

It may come from an administrator within the hospital itself or other employing institution. Since hospitals often have rehabilitation units or are engaged in the rehabilitation process it is natural (although perhaps unlikely) for some physicians and administrators there to think about their own facilities as sources of job evaluation, training and employment. Second, it may come from a state rehabilitation agency that has a responsibility for finding job training sites for people needing rehabilitation. Third, it may come from other agencies working with the disabled such as bureaus of mental retardation or mental health who likewise want to find productive evaluation and training sites and employment opportunities for clients. Fourth, it may come from pressures generated by disabled people and their families who believe there is more opportunity in the employment sector than they traditionally have had access to. The impetus and the source of the pressure has some effect on the way the program actually does begin.

We will assume here that the impetus is coming from *outside* the employing institution, such as the hospital, so that obtaining an agreement to participate is one of the first key rungs in the process.

Obtaining Hospital Agreements To Participate

Obtaining the hospital agreement involves the following:

- Making the initial approach
- Providing a rationale for accepting the program to the hospital administrators
- Outlining in specific terms what the hospital is giving and what it is getting
- Concluding the agreement in writing

Each of these key activities is discussed below.

1

Obtain Hospital Agreements

Making the Approach
Rationale for Selling Program
What Hospital is Giving, Getting
Concluding the Agreement

In Maine, the Bureaus of Mental Retardation and Rehabilitation approached Maine Medical Center's Department of Rehabilitation Medicine to see if an alternative to sheltered workshops for evaluating and training the disabled could be developed, specifically within the hospital work environment. The Rehabilitation Medicine Department worked with these agencies to organize a means for placing their clients in the hospital for evaluation and training. Contacts were made with various hospital administrators and departments to share this idea. Specific questions about insurance, payroll, payment of subminimum wages and supervision were addressed prior the the original grant award in which the state funded a pilot project at the hospital. From this initial success the program was expanded to five other hospitals during the federal demonstration period.

Making the Approach

Ultimately any hospital's participation will need to be approved by the chief executive officer and perhaps the board of directors before the program can be initiated. This approval should be signified by a letter of agreement signed by all cooperating parties. People sitting in a state rehabilitation agency or other service providing organization have to be concerned about how to get the hospital to that point, in effect, how to sell it on the idea of participating.

As with any approach, having a personal contact well placed in the organization helps considerably. The agency should try to obtain a list of the board of directors or key staff members to see if it has any contacts there. If the approaching agency has a board of directors, it should be fully apprised of the plan and solicited to help.

The agency representative should explain to the hospital contact person what it wants to do and try to get him or her to introduce the agency to the appropriate officer within the organization: one of the executive officers, the personnel director or a sympathetic physician or administrator in the rehabilitation area. In making the contact, the agency should consider who is the best person to open the door. A rehabilitation counselor, for example may want the agency director to call his counterpart at the hospital.

Also, it is good form to learn ahead of time about the population served by the hospital, the number of employees it has, and the way it is legally organized such as a private non-profit corporation, a profit-making corporation or a state or federal facility.

Ideally, the agency should try to obtain tacit agreement from an officer who has the authority to provide it and permission to work out the details with a subordinate. In the project demonstration, staff generally received approval from the hospital president and then worked with the personnel director and supervisors of the departments, such as dietary and housekeeping, where the trainees would be placed.

In the absence of a personal contact, the agency may start by writing a letter to the director of personnel outlining the program and asking who should be seen to pursue this further. (See Exhibit 1, Sample Letter of Approach.) If the agency has already developed agreements with the other cooperating organizations it would be well to mention this. If the agency is willing to contribute some of its own funds, for example to pay for a site supervisor, this should be stated since one of the first questions the hospital will raise is, what will this cost us.

One advantage in approaching hospitals over other kinds of employers to serve as job evaluation and training sites is that hospitals are traditionally respected employment facilities in the community which have a benevolent mission to begin with — healing people. Their boards usually consist of well respected leaders who value human potential and are empathetic. Agencies can appeal to some of these inherent attributes of hospitals, although what is being promoted first and foremost is the work ability of the trainee.

After sending the letter to the personnel director the agency will want to follow up with a phone call and then a personal visit.

Rationale for Selling Program

What the agency is trying to obtain from the hospital is an agreement that it can be used as a work center (or sheltered workshop) where people can receive evaluation and training while performing jobs normally done there. Most hospitals will not know what a work center is in the sense that the agency is using it. A work center, in this case, is a job evaluation and training site where participants working under a Department of Labor Certificate perform tasks while earning less than the normal wage for that job. (Please see obtaining DOL Certificates, below, for a more complete discussion.)

Exhibit 1

Sample Letter Of Approach

John Clemente
Personnel Director
Maine Medical Center
22 Bramhall Street
Portland, Maine 04102

Dear Mr. Clemente,

Recognizing the problem of a significant number of disabled adults in the greater Portland area not capable of employment in the competitive job market, the Bureau of Rehabilitation in conjunction with the Bureau of Mental Retardation would like the Maine Medical Center to consider establishing a sheltered workshop within that facility. A sheltered workshop is a Department of Labor designation which allows the hospital to pay subminimum wages to disabled people engaged in job evaluation and training. Presently there is no such program in the State of Maine that incorporates a sheltered workshop within a plant whose purpose is other than employment of handicapped people. In keeping with the goal of providing a normalized environment, Maine Medical Center would be an ideal site to offer job evaluation and training to disabled adults to reach their highest level of vocational functioning.

Because this population needs a different and very special type of supervisor, the two Bureaus would provide the necessary funds to pay the salary for this staff person. In turn, Maine Medical Center would benefit from a stable and dependable work force to perform those tasks at the hospital which are elementary and routine in nature. You may choose jobs with traditionally high absenteeism and turnover rates for the training slots. What we are asking has been tried successfully in several other hospitals whose administrators have been more than pleased with the outcome.

I will be calling you shortly to see if we can set up a time to explore this idea further. I think you will find the Hospital Industries Program beneficial both to your facility and disabled people.

Sincerely,

Jonas Sneed
Director
Bureau of Mental Retardation

Michael R. Vost
Director
Bureau of Rehabilitation

Once the hospital agrees to act as a work center, the agency will want it to designate specific jobs that the cooperative agencies will be responsible for filling on a rotating basis with project trainees. Because many trainees will not be able to work as quickly or as long as others normally performing the job, participants may have to share jobs. That is, it may take two trainees to achieve the same productivity as one regular employee. From the hospital's perspective this should not prove to be a detriment provided the work is achieved at the same cost and quality as would otherwise be expected.

In approaching the hospital the agency is selling the fact that the quality of work will be equal to or better than the standard performance. The agency is not selling mental retardation or mental illness; it is not selling developmental disabilities: it is not preying upon the guilt or even the good heartedness of the employer. It is selling work, competent work that is of equal or better quality than the hospital normally expects. The agency guarantees the performance of this work by providing its own site supervisor who is also trained in the hospital tasks and will even complete the job, if necessary.

"This is a competitive real-life situation. We don't want employers to hire these people because they feel sorry for them."

Ultimately the success of any evaluation and training experience is whether the person can transfer the skills to another work setting. For people who can develop their speed and productivity, Hospital Industries will be working towards achieving full-time employment for them either in this facility or elsewhere. Any training program is one where people move on. *Thus, it is important to stress that the purpose is to use the hospital as an evaluation and training center and the designated jobs as traineeships.* Naturally the hospital will retain the right to hire any participants it wishes but it must move them into their own positions so that the original job can be used to train new people.

Another rationale used to sell the program is that job slots provided for the training may be offered in positions where hospitals traditionally have the highest turnover rates and greatest absenteeism. Usually this means second and third shift work or weekend rotations in unskilled and semi-skilled areas. Such areas may include housekeeping, food service, and laundry but also X-ray, buildings and grounds, shipping and receiving, print shop and others.

What Hospital is Giving, What it is Getting

By participating in Hospital Industries the hospital is both giving and receiving a service. The hospital is giving a facility in which people can receive sheltered evaluation and training. In addition it may be providing a so-called transitional employment setting, a place where people who are making the transition to competitive employment may work with less supervision than is required in evaluation and training. It may also be giving an on-the-job training (OJT) site in which specific skills are taught by hospital staff under an OJT contract. While the most important aspect of the program initially is the sheltered employment it may be useful to introduce these other concepts early so that a variety of options can be incorporated in the hospital agreement. How do these differ?

Sheltered employment — here the hospital provides positions that trainees coming in under Hospital Industries would fill. Depending upon their individual skills, the employees would share the job under a Department of Labor contract for periods of 10 to 40 hours per week. The trainees would start at a minimum of 25 percent of the normal wage for the position and could work up to 100 percent during the evaluation and training period. The hospital would never pay more than it ordinarily would to fill that job given a 20 or 40 hour position.

Transitional employment — here the hospital identifies one or more jobs that would be filled by people who are functioning at a high level at the time they are referred to HIP and do not need extensive evaluation and training but instead a transitional period where their work can be monitored and their social adjustment made. Normally they would be earning at or near the entry wage for the position. In some instances they would be preparing for a job at the hospital and in others building a work record that could be used in a referral to other employment. Transitional employment should not last more than six months.

"By the time someone gets to transitional employment all you are doing is the finishing sanding and polishing."

On-the-job training — here the hospital develops agreements with an office of the state rehabilitation agency to provide on-the-job training under a contract which describes the length of the training period; the curriculum or training areas to be covered by the employer; the methods and responsibilities for reporting progress; the pay to be received; and the level of wage sponsorship.

With an OJT contract the worker does not receive reduced wages, as with sheltered employment: instead the hospital is reimbursed for a portion of the salary by the rehabilitation agency. The employer can receive up to 70 percent of the established entry level wage for the particular job and, if the person is considered by the rehabilitation agency to be severely disabled, up to 100 percent for the initial period of employment. In both instances the employer should be expected to assume a growing proportion of the pay during the training period providing the employee is performing satisfactorily. Training typically may last from 15 to 32 weeks.

Unlike the other options, with OJT the hospital's own personnel would be responsible for conducting the training although the HIP supervisor would be available for consultation. The employer would also be expected to provide usual and customary holidays and benefits. The objective is continued employment upon completion of the training, either at the hospital or another site with the same vocational goal.

A special version of OJT is the Association for Retarded Citizens' (ARC) OJT. This project encourages employers, both proprietary and

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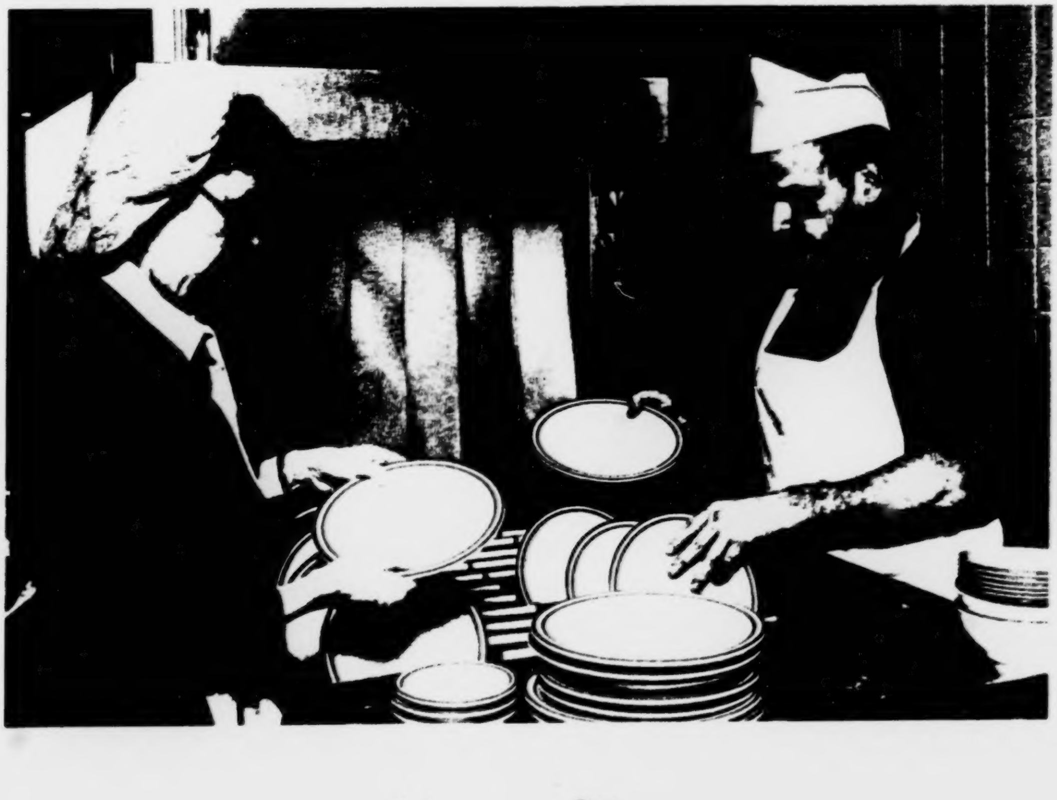
non-profit, to provide job opportunities for mentally retarded persons. The ARC, in this instance working through the site supervisor, assists a business by pointing out occupational areas where retarded workers can alleviate manpower shortages. The project reimburses employers one-half the entry wage for the first 160 hours of employment and one-quarter for the second 160 hours. With this option, the employer should have the intention of continuing the worker after the training period.



Other skill training — here the hospital receives a fee from the cooperating agency to provide direct instruction to individuals who want to learn a more complex skill but who do not need sheltered employment. This might include use of complex technical equipment such as color press operation in a print shop, x-ray technology, or production baking, as examples. The training is curriculum-based and the student's goal is to master a skill in the same way he or she would do in vocational school. The difference is that the classroom is the job site. The curriculum can be adopted from an industrial arts or vocational program or even from an equipment manual. Many industries have in-service training programs whose material can be reviewed. The new computer manuals are geared toward self-instruction and can provide an excellent starting point in curriculum development. The trainee is not paid and is not necessarily expected to be employed by the hospital.

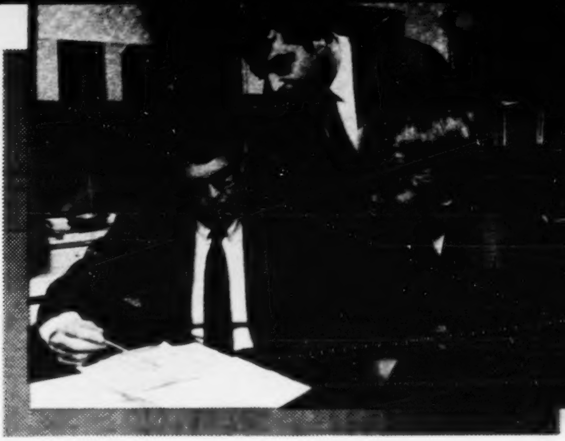
For all these options the hospital would be giving space in the facility to work. In most it would be providing subminimum wages which are increased only as people demonstrate their ability to perform at normal hospital standards established for other workers. It would also be providing the traditional amenities and benefits available to other employees such as a pre-employment physical, a hospital identification badge and name tag, a uniform, and fringe benefits pro-rated according to the hours worked.

Perhaps equally important, it would be giving a real work environment. Participants for the first time would have the opportunity to model their behavior after people considered by the mainstream of society to be acceptable in the world of work.

What the hospital is getting is a reliable work force which, through job sharing, performs tasks at equal or better speed and accuracy.

In the sheltered employment program the hospital is getting DOL certificates which allow it to pay subminimum wages. It is getting an additional site supervisor who becomes a hospital employee but whose retention is contingent upon the availability of funds from the sponsoring state agencies.

In the on-the-job training program the hospital receives OJT funds from the state rehabilitation agency for a specified time period to reimburse a portion of the individual's wages.



In the skill training program, the hospital receives a negotiated fee from a public or private rehabilitation agency for providing direct instruction of specific skills. Individuals who do not do well in didactic settings often learn quickly in a hands-on experience.

In return for its participation, the hospital also gets the guarantee that the work will be completed with a reliable work force. An added benefit is an opportunity to provide a service to the community which, in the demonstration sites, has resulted in excellent public relations for the hospital. "So many things happened as a result of this project that even we didn't anticipate," says one enlightened administrator. People were gainfully employed by the hospital; others were able to transfer their skills to the community. "That should be the excitement in relation to this population, we all make too many [negative] assumptions."

Concluding the Hospital Agreement

Once the agency has sold the hospital on the project and has obtained its willingness to participate it will want to commit the agreement to writing. All agreements should specify the kinds of programs that could be offered and the roles and responsibilities of each party. At the time the agreement is made each hospital should appoint a liaison responsible for assuring satisfactory completion of the objectives.

In the sample agreement contained in Exhibit 2 the cooperating facilities are the hospital in which the program will take place, in this case, The Aroostook Medical Center; the project consultant, in this case, the Maine Medical Center; and three sponsoring state agencies who jointly pay for the site supervisor, supply clients and render supportive services. In the demonstration, the three agencies — the Bureaus of Rehabilitation, Mental Retardation and Mental Health — were critical to the implementation of the model. In the absence of a consulting hospital such as Maine Medical, one of the other three will probably play the lead role in negotiating with the hospital and concluding the agreement.

Exhibit 2

Sample Letter of Agreement

Cooperating Facilities
1. The Aroostook Medical Center, Presque Isle, Maine.
2. Maine Medical Center, Department of Rehabilitation Medicine, Portland, Maine.

Sponsoring Agencies
3a. Bureau of Rehabilitation (BR)
  b. Bureau of Mental Retardation (BMR)
  c. Bureau of Mental Health(BMH)

The cooperating facilities agree to establish a Hospital Industries Program at The Aroostook Medical Center in Presque Isle, Maine consisting of Item 1 and Items 2, 3 or 4 at the discretion of The Aroostook Medical Center.

Item 1. **Sheltered employment.** Clients referred by agencies of the Bureau of Mental Health, Mental Retardation, and Rehabilitation will be working at The Aroostook Medical Center with supervision provided by an employee hired by The Aroostook Medical Center but funded in total by the three sponsoring agencies. Scheduled hours of the supervisor's employment will be determined by The Aroostook Medical Center and continued employment will be contingent upon continued funding by the three sponsors.

Clients will be employees of The Aroostook Medical Center working under certificates from the Department of Labor. The hospital will take, for example, a 20 hour position and isolate the cost of those 20 hours which would present the maximum amount expended on the introduction of a different work force. Employees in this program will be eligible for the same benefits pro-rated as those who work regularly 20 hours or more per week in accordance with The Aroostook Medical Center's existing pro-rated benefit program. The same quality of work will be expected, but might be performed by more than one individual.

Item 2. **Transitional Employment.** The Aroostook Medical Center will identify two or three job areas within the hospital where individuals who were almost ready for full-time employment will work. The goal of the transitional employment position is to assist people to work independently and improve any skills deemed lacking by a supervisor.

Item 3. **On-the-job Training.** The Aroostook Medical Center will provide on-the-job training under contract with the Bureau of Rehabilitation under the conditions specified by federal regulation. TAMC will be reimbursed for a portion of the individual's salary during the training period.

Item 4. **Other skills Training.** The Aroostook Medical Center will provide skill training in areas of the hospital where individuals want to receive specific curriculum-based vocational instruction. Trainees will not be paid. The hospital will be reimbursed for this service by the contracting agency.

Responsibilities of Sponsoring Agencies
The Bureaus of Mental Retardation, Mental Health, and Rehabilitation will fund a position called HIP site supervisor for The Aroostook Medical Center. Continued employment of this person will be contingent upon full funding by the three sponsors.

Sponsors will establish referral procedures to the Hospital Industries Program and serve as an advisory committee by designating one person from each Bureau. The Aroostook Medical Center and HIP site supervisor will assist in this screening process.

The HIP site supervisor will be available to work with individuals in the Hospital Industries Program and any other employees of the hospital as needed.

Responsibilities of Project Consultant

The Maine Medical Center, Department of Rehabilitation Medicine, will:

A. Serve on a consultant basis to the Bureaus and the Hospital at no charge to The Aroostook Medical Center.
B. Work with the HIP site supervisor for initial orientation.
C. Design a program of management and/or supervisory orientation for selected areas of the hospital.
D. Review evaluation, screening, and follow-up activities for all participants in the program.
E. Provide specific job descriptions to assess various areas of the Hospital to ensure a proper match of individual ability to job.

Responsibilities of Hospital

The Aroostook Medical Center will:

A. Provide orientation and evaluation materials to the HIP site supervisor who will be an employee of The Aroostook Medical Center.
B. Provide an identified number of work hours to the Hospital Industries Program based upon availability and the concept of one work force being exchanged for another. Initially, focus will be on areas such as Housekeeping, Food Services, Laundry, and Building and Grounds.
C. Provide the same health screening that is required for all other employees and fringe benefits commensurate with the benefits of other employees (prorated as appropriate).
D. In conjunction with the HIP site supervisor, assist in the supervision and evaluation of members of this work force.

The parties agree to this letter of agreement as stated above

Richard M. Balser, Date

Principal Investigator,
Hospital Industries Program,
Maine Medical Center

James Barton, Date

Program Manager
Bureau of Rehabilitation

Michael DeSisto, Ph.D., Date
Director,
Bureau of Mental Health

Stanley Lowrey, Date
Administrator,
The Aroostook Medical Center

Terry Sandusky, Date
Regional Administrator,
Bureau of Mental Retardation

Paving the Way to Begin

Between the time the agencies sign the agreement with the hospital and the day the first client walks in the door for a job interview there are many activities which must be undertaken:

- Obtaining the Department of Labor certificates
- Hiring the HIP site supervisor
- Preparing other hospital staff members for the new workers and publicizing the program
- Clarifying the roles of the cooperating agencies
- Identifying and analyzing jobs

2

Pave Way to Begin

Obtain DOL Certificates
Hire HIP Site Supervisor
Prepare Hospital Staff
Clarify Agency Roles
Identify and Analyze Jobs

Obtaining DOL Certificates

In order for the hospital to participate in the program and pay wages below the federal minimum it must obtain a sheltered workshop certificate from the US Department of Labor. The Employment Standards Administration, Wage and Hour Division, is the responsible bureau. It also needs evaluation and training certificates which give the sheltered workshop authority to conduct learning, evaluation or training activities. Ultimately, the facility may also want to apply for other DOL certificates such as the special worker certificate which permits named individuals to work at subminimum wages for a longer term beyond evaluation and training.

Applications for the Sheltered Workshop Certificate (Form WH-226 Nov. 1981) and the Evaluation or Training Program Certificate (Form WH-247 July 1977) can be obtained from the state or local office of the Department of Labor or an office of state bureau of rehabilitation which can provide assistance in completing the forms. Please see Exhibit 3.

These certificates are authorized by the Fair Labor Standards Act, the Walsh-Healy Public Contracts Act or the Service Contract Act. Wages paid under them may range from 0 to 100 percent of the prevailing wage for the task although the Hospital Industries demonstration assumed all trainees could function at a minimum of 25 percent of the regular worker's capacity and never paid below that rate.

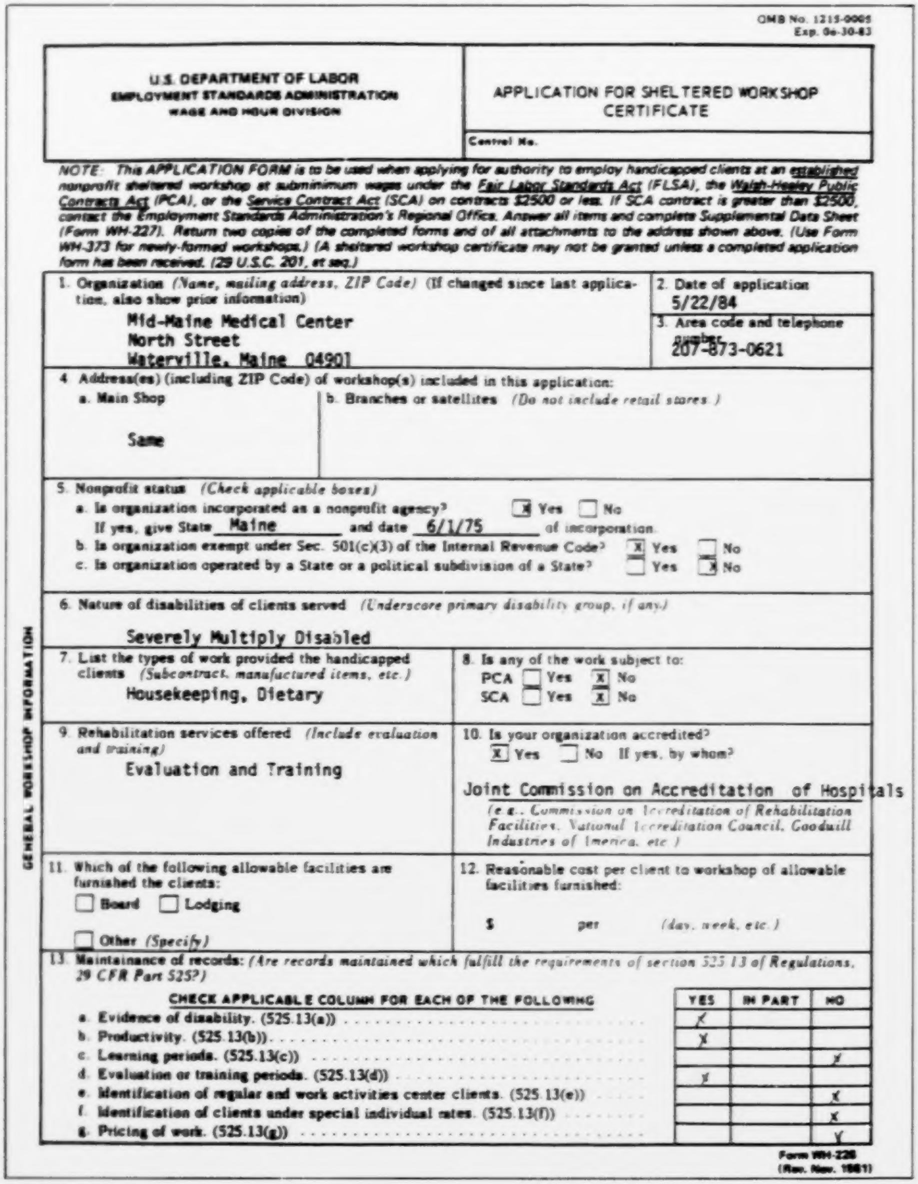
The time it takes to obtain the certificates can range from three weeks to two months and the hospital should allow at least two months before the scheduled start-up.

The Department of Labor considers sheltered workshops to be facilities which provide training and employment for handicapped individuals who ordinarily would not be able to obtain employment in competitive industry.

While originally free-standing facilities, it is a fairly new innovation to have sheltered workshops designated within regular employment sites. However, there have been provisions for the employment of handicapped workers at subminimum wages in the Fair Labor Standards Act since

Exhibit 3

DOL Certificate Application



OMB No. 1215-0005
Exp. 06-30-83

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION

APPLICATION FOR SHELTERED WORKSHOP CERTIFICATE

Control No.

NOTE: This APPLICATION FORM is to be used when applying for authority to employ handicapped clients at an established nonprofit sheltered workshop at subminimum wages under the Fair Labor Standards Act (FLSA), the Walsh-Healey Public Contracts Act (PCA), or the Service Contract Act (SCA) on contracts $2500 or less. If SCA contract is greater than $2500, contact the Employment Standards Administration's Regional Office. Answer all items and complete Supplemental Data Sheet (Form WH-227). Return two copies of the completed forms and of all attachments to the address shown above. (Use Form WH-373 for newly-formed workshops.) (A sheltered workshop certificate may not be granted unless a completed application form has been received. (29 U.S.C. 201, et seq.)

GENERAL WORKSHOP INFORMATION

1. Organization *(Name, mailing address, ZIP Code)* (If changed since last application, also show prior information)

Mid-Maine Medical Center
North Street
Waterville, Maine 04901

2. Date of application
5/22/84

3. Area code and telephone number
207-873-0621

4. Address(es) (including ZIP Code) of workshop(s) included in this application:

a. Main Shop
Same

b. Branches or satellites *(Do not include retail stores.)*

5. Nonprofit status *(Check applicable boxes)*

a. Is organization incorporated as a nonprofit agency? ☒ Yes ☐ No
If yes, give State Maine and date 6/1/75 of incorporation.
b. Is organization exempt under Sec. 501(c)(3) of the Internal Revenue Code? ☒ Yes ☐ No
c. Is organization operated by a State or a political subdivision of a State? ☐ Yes ☒ No

6. Nature of disabilities of clients served *(Underscore primary disability group, if any.)*

Severely Multiply Disabled

7. List the types of work provided the handicapped clients *(Subcontract, manufactured items, etc.)*

Housekeeping, Dietary

8. Is any of the work subject to:
PCA ☐ Yes ☒ No
SCA ☐ Yes ☒ No

9. Rehabilitation services offered *(Include evaluation and training)*

Evaluation and Training

10. Is your organization accredited?
☒ Yes ☐ No If yes, by whom?

Joint Commission on Accreditation of Hospitals

(e.g., Commission on Accreditation of Rehabilitation Facilities, National Accreditation Council, Goodwill Industries of America, etc.)

11. Which of the following allowable facilities are furnished the clients:
☐ Board ☐ Lodging
☐ Other *(Specify)*

12. Reasonable cost per client to workshop of allowable facilities furnished:
$ per *(day, week, etc.)*

13. Maintainance of records: *(Are records maintained which fulfill the requirements of section 525.13 of Regulations, 29 CFR Part 525?)*

CHECK APPLICABLE COLUMN FOR EACH OF THE FOLLOWING	YES	IN PART	NO
a. Evidence of disability. (525.13(a))	X		
b. Productivity. (525.13(b))	X		
c. Learning periods. (525.13(c))			X
d. Evaluation or training periods. (525.13(d))	X		
e. Identification of regular and work activities center clients. (525.13(e))			X
f. Identification of clients under special individual rates. (525.13(f))			X
g. Pricing of work. (525.13(g))			X

Form WH-226
(Rev. Nov. 1981)

its inception in 1938 in recognition that many cannot successfully compete for jobs paying the statutory minimum wage or above. The provisions were included as an inducement for employers to hire handicapped workers and to help offset losses that may possibly result from the underutilization of equipment.

Some of the criteria used by DOL to judge whether to grant a sheltered workshop certificate are: the nature and extent of the disabilities of the people to be served; whether wages commensurate with ability will be paid; and whether there is evidence of unfair competition which spreads or perpetuates substandard wages.

According to the regulations, certificates may be issued for the entire facility or specific departments. The demonstration sites found it most expeditious to certify the entire hospital so that staff had the flexibility to move people from department to department as the opportunity arose.

Criteria used by the Department of Labor in determining whether to issue a special certificate for training and evaluation are: whether there is competent instruction or supervision; whether there is a written curriculum and procedures designed to obtain the objectives of the program; whether there are written records made at periodic intervals of not more than three months showing progress of individual clients; and whether, in the case of a training program, there is a progression of pay rate increases as the trainee successfully advances through steps of the program.

Due to the curriculum requirements, the demonstration sites developed a format which covered the program goals, curriculum steps and related wages and the training to be received. An example of the Hospital Industries curriculum for food services and housekeeping is provided in Exhibit 4. Note that the curriculum is as much an outline of the evaluation and training sequence as a detailed description of job tasks. The latter is developed as individual job analyses are completed and may be appended at a later time if more specificity is required.

Exhibit 4

Sample Hospital Industries Curriculum

Background

The purpose of the Hospital Industries program is to provide evaluation and training in entry level positions in departments including food services and housekeeping to disabled individuals. The expected outcomes will vary as will training approaches and job structures. A dietary aide (355.677-010), the entry level position in the Food Service Division of the Maine Medical Center and in similar medical institutions, as identified in the Dictionary of Occupational Titles, Fourth Edition 1977, consists of eleven primary job components. Hospital Industries will utilize these positions and the dishroom as the core training area for vocational preparation and orientation. Combined with this will be work assignments throughout the food service division appropriate to the individuals' skills, aptitude and learning rate.

At the completion of training, successful individuals will acquire transferable skills to such occupations as dietary aide (medical service) (355.677-010), dishwasher, hand (hotel and restaurant) (311.677-018), dishwasher, machine (hotel and restaurant) (318.687-010), or cleaner, commercial or institutional (any industry) (381.687-014).

A Housekeeping aide (323.687-010), the entry level position in the Housekeeping Division of the Maine Medical Center and in similar medical institutions, as identified in the Dictionary of Occupation Titles, Fourth Edition 1977, consists of six primary job components, one being cleaning floors and office furniture. Hospital Industries will utilize this position and an area specified by the Director of Housekeeping as the core training area for vocational preparation and orientation. If an individual's skill level is appropriate, s/he will be given expanded work assignments. At the completion of training, successful individuals will acquire transferable skills to such occupations as cleaner, housekeeping (any industry) (323.687-014) or housecleaner (hotel and restaurant) (323.687-018).

Curriculum and Program Goals

The program will consist of evaluation and training. During evaluation, the worker will be assigned to eleven positions in the dishroom combined with cleaning assignments in the kitchen. Determination of performance as compared to competitive standards (based on job analysis, time studies, supervisory requirements, learning styles, areas requiring further training, and percentage of productivity in each identified work position) will be determined in this phase.

All workers possessing the necessary entry criteria will receive at least 25% of the current minimum wage during this evaluation. After spending a minimum of five days in each of the eleven positions, unless determined that the assignment is not possible, a percentage of productivity and subsequent wage will be determined for each position. At the completion of this phase, the individual will move on to the training phase.

During training, emphasis will focus on developing and upgrading skills for each position in the dishroom and housekeeping area and other associated work assignments. Any time a worker is assigned a *new* job, s/he will be considered in an evaluation state for that particular job and receive the wage assigned during evaluation.

Outcomes from training will vary with each individual. Total length of participation will not exceed six months for evaluation and twelve months for training. An individual may be terminated at any point. Anticipated outcome at completed evaluation:

(a) 100 percent performance in all identified food service job components, competitive, 40 hour employment.
(b) 100 percent performance in all identified food service components, competitive, less than 40 hour employment.
(c) Less than 100 percent performance on some job components, job sharing.
(d) Less than 100 percent performance on all job components, certificate employment.

Curriculum Steps and Related Wages

Evaluation:

Step 1: 25 percent of current minimum wage-worker must possess entry criteria.
(a) VR client
(b) completed vocational evaluation, work adjustment training, or sheltered or competitive employment
(c) possesses job-keeping skills (attendance, punctuality grooming, adherence to safety, acceptance of supervision, etc.)
(d) has transportation arrangements
(e) requires no unremedial physical restrictions

Step 2: 25 percent of current minimum wage — assignment and evaluation of performance in each of the eleven dishwasher positions for a minimum of 5 days for each one and evaluation of performance in the housekeeping area for a minimum of two weeks. Wages assigned to each position based on job analysis, time studies, and production requirements will be starting wage in training phase. The dishroom positions are as follows: strip trucks, strip silver, position 1, position 2, position 3, position 4, position 5, position 6, small machine operator, large machine operator, and taker. The Housekeeping position is washing and waxing floors and light office cleaning. Each component will be evaluated. After completing this step, the worker will move to training step one. Individual must be working at least 25 percent productivity.

Training:

Step 1: 25 percent plus of current minimum wage-development and up-grading of the worker skills and performance for each dishwasher position and component of the housekeeping position. Wages determined during evaluation will be assigned to each position andcomponent independently. Monthly evaluations will increase or decrease those wages. Rapid assimilation of skill and performance up to expectations may mean several job assignments on a monthly basis. Any new job assignments will necessitate evaluation status wage for at least 5 days until a wage assignment can be determined.

Step 2: 25-100 percent of current minimum wage — completion of training (maximum 12 months).
Wage will depend on training outcomes as identified in previous section.

Hiring the Site Supervisor

Inherent in the Hospital Industries model is the promotion of public and private cooperation. One tangible symbol of this cooperation is the position of HIP site supervisor. This individual represents the focal point of the evaluation and training and is the key link among the parties to the cooperative agreement.

A key strategy of the model is to have the position paid for by the state agencies but created and located in the hospital. Thus, the HIP site supervisor is a hospital employee whose continued presence is contingent upon agency funding. This arrangement gives each party a vested interest in the individual, the program and its success.

In the demonstration sites, joint funding represented an investment of approximately $6,000 per agency which is the typical agency cost of training one person per year. Thus, if each agency had only one slot filled at any given time it would be realizing its investment. In most instances many more were served so the agencies in effect were saving money on job training while receiving what was uniformly considered to be a superior training experience for their clients.

Once the program was understood it was not in the least bit difficult to obtain this financial commitment from the cooperating agencies (Mental Retardation, Mental Health, Rehabilitation) and should not prove to be so elsewhere.

In the demonstration hospitals, supervisors were assigned to the personnel department but rotated to the actual job sites in which people were being trained. Thus, they worked at various times in housekeeping, linen services, food services and so forth. Being assigned to personnel afforded certain advantages. One HIP supervisor reported, "My job title is Employment Counselor in the Personnel Department. I have the first chance to see new job openings." It also allowed movement among departments.

What qualifications should be sought in a site supervisor? The person needs to be able to work well with disabled people. S/he must be able to grasp the requirement of the jobs for which people are being trained and must be willing to work alongside them to model the tasks and even supplement productivity. The individual also must have flexible working hours to accommodate the various shifts in which people may be employed.

If no one else is available s/he may have to administer time studies and document the progress of each trainee. Outside the hospital, the HIP site supervisor is responsible for consulting with liaison people and counselors from the cooperating agencies. S/he may pursue job development ideas both within and without the facility. In a macro sense the supervisor may identify other facilities in the community such as hospitals, school systems, government agencies, colleges and nursing homes which may be interested in providing job evaluation and training to the disabled. Further, the individual works with the Department of Labor on all certificate questions.

The demonstration sites sought candidates with a bachelor's degree in a social service field or appropriate alternative. They wanted people with previous experience working with handicapped individuals preferably in employment settings, and with supervisory experience. They also required excellent interpersonal relation skills. A sample job description for the site supervisor is contained in Exhibit 5.

It is best for the selection of the site supervisor to be a joint one among the hospital and the cooperating agencies. The hospital should post the job in the way it normally advertises new positions. A committee representing the cooperating agencies should screen the candidates and make the final selection who, in any event, must be agreeable to the hospital.

Exhibit 5

Site Supervisor Job Description

Position Title: H.I.P. Site Supervisor

Department: Personnel

Functions:

To direct, coordinate and supervise handicapped people in a structured program within the hospital. To evaluate and assess these individuals as they perform in various departments using guidelines established by the US Department of Labor. To monitor and be responsible for the work performance of all clients, sharing information with the appropriate referral sources (Bureaus of Rehabilitation, Mental Health, and Mental Retardation).

Principal Duties and Responsibilities:

1. Plans, directs and supervises work area as it relates to workers in the Hospital Industries Program.
2. Performs, in conjunction with departmental supervisors, probationary reviews and writes monthly evaluation and progress reports for the appropriate bureaus.
3. Maintains complete records for each certificated worker as required by the US Department of Labor.
4. Reviews, on a regular basis, hospital equipment used by Hospital Industries Program employees, requesting preventive maintenance or other corrective action as indicated.
5. Accepts responsibility for the implementation and functioning of the certificated worker at all times while on duty.

Working Conditions: No significant elements in the work environment to create distractions or unpleasant conditions.

Physical Demands: Moderate physical effort.

Occupational Risks: Minimal.

Number Supervised: One or more handicapped participants in the Hospital Industries Program.

Minimum Requirements For The Job: (particularly as they relate to certification, registration or licensure.)

Education: Bachelor's Degree in a social service field or appropriate alternative.

Experience: Previous experience working with handicapped individuals, such as workshop settings. Also, supervisory experience.

Other: Excellent interpersonal relation skills. Maine driver's license.

Tenure: After one year this position is contingent upon funding.

Because the HIP site supervisor plays a linking function among programs and agencies outside the hospital, and among departments and supervisors within, the individual can become confused about his or her proper role and allegiances. In the demonstration hospitals, supervisors expressed frustration about their constant efforts to explain their role. Within the hospital they wanted to clarify their function to help others understand the program. Outside the hospital they needed to explain themselves to referring counselors and agency personnel. They felt tugged by the needs of the different referring agencies and by their responsibilities toward the trainees. There is a tendency for the referring agency to assume the HIP supervisor will take full responsibility for social, placement and follow-up needs whereas the job really should be limited to that of a training provider and evaluator.

HIP supervisors also voiced difficulty in identifying with their professional peers at the hospital. Age, sex and vocational similarities were often negated by the disparities in job responsibilities and supervisory status. They sometimes felt socially estranged and vulnerable due to lack of peer support.

Job stress posed another problem. In small programs with only one HIP site supervisor the individual was called upon to work excessive and unpredictable hours, often resulting in interpersonal and domestic disharmony.

"Once I worked 21 days straight. You feel responsible for the trainees. Some are stressful to deal with. You feel wiped out by the end of the day." — Site Supervisor

To combat these issues the project provided a psychologist to meet periodically with the supervisors as a group. They used the occasion to vent their concerns and share ideas for their resolution.

New projects with only one hospital or supervisor can address the problem in other ways. The first is for the cooperative agencies to be aware of them and to discuss them frankly at the time applicants are being considered. The second is to encourage the HIP site supervisor to form allegiances with their professional counterparts in the community who may be working in other job settings. Most communities have job training and placement programs of some nature. The HIP person may wish to start a group or meet with their peers on a one-to-one basis.

To alleviate the stress caused by long hours and difficult shifts, the project may hire vocational students to assist with supervision as was tried at one site. Alternatively it may try to raise funds for additional supervisory time by charging agencies a supervision fee on a per client basis after the agency has its full complement (which may be only one or two individuals) enrolled.

The HIP supervisor may also be able to develop agreements with the regular department supervisor about sharing the supervisory function. Under Department of Labor regulations, because the *hospital* possesses the work certificate any supervisor would qualify to monitor work performance. Technically the HIP employee would not have to be on site at all times. Although prior arrangements should be made if he or she does not plan to be there.

Preparing the Hospital Staff and Publicizing the Program

It is important for workers and supervisors within the hospital to know what the goals of the project are — to use the hospital as an evaluation and training site for people with various forms of disability — and what to expect from the new trainees. One method is for the new site supervisor and representatives of the cooperating agencies to make a presentation to appropriate personnel at a staff meeting or training session.

At the presentation the project people should stress that the trainees will be held to the same quality and production standards normally used. Department heads should be asked to discuss their standards and job expectations. A hospital with tight measures is an easier place for Hospital Industries to function. Supervisors who know how long it takes to do the job, will know if the HIP trainees are performing up to par. The demonstration project found that the process of job analysis and training lent credibility and importance to functions being performed which had previously been taken for granted. The process even enhanced the role of the department supervisor.

Either on this occasion or in private, the department supervisor should have the chance to air all his or her questions and concerns in an open manner. The agency should talk specifics to this person about how many new employees should be anticipated in his area and in what shifts. The supervisor should be asked to discuss his turnover and absenteeism rates, focusing on the jobs and shifts with the largest problems. He or she should be told that these are the areas and times in which Hospital Industries can help most, and that the new HIP site supervisor can alleviate the supervisor's own responsibilities by filling in at odd hours.

"One department head lit up like a light bulb when we mentioned that we would bring in our own supervisor to guarantee night and weekend work."

Once the program has had the opportunity to prove itself other shifts and positions may be sought.

A second way to publicize the program is through the hospital's house organ. The site supervisor or one of the responsible agencies can prepare a press release or discuss the objectives of the program with the editor of the house newspaper who would write the story.

Further, the supervisor may want to talk to the hospital's public relations director about placing an article in the local newspaper about the project. This step may be delayed until one or two people are placed in order to give concrete examples of how the project is working.

The goal of these preparatory activities is to generate pride in what the hospital is doing, to avoid surprises, and to alleviate fears. If the agency's presentations are not sufficiently convincing, the cooperating agencies may want to arrange for the hospital supervisors to visit other hospitals which have such a program already in operation or put people in telephone contact with their counterparts elsewhere.

Clarifying the Agency Roles

Hospital Industries attempts to achieve the highest level of employment possible for people who traditionally have had little or no opportunity to test their capabilities in a competitive work environment.

All people Hospital Industries serves will have identifiable disabilities which associate them with one or more traditional agencies: generally, mental health, mental retardation, and/or vocational rehabilitation.

Usually agencies with their own unique clientele governed by discrete federal and state laws and operating under specified administrative structures do not try to join in cooperative ventures. This melding of clients and purposes is bound to cause tensions that will need to be resolved.

The hospital agreement outlines very broadly the responsibilities of each agency. But a project liaison should be designated from each to work out the specifics. The fundamental principle is that each party should continue to do what it does best.

Certain basics must be provided before a client is even referred to the program. These include a place for the person to live, a physical evaluation and a means of getting to the job. While other services such as training in daily living skills would be helpful, they should not be considered prerequisites.

The rehabilitation agency may have funds for transportation and preemployment training and should provide this. Mental health may have access to training in budgeting and funds for counseling and peer support groups. Mental retardation may have programs in daily living skills. These services may be offered prior to or concurrent with the job evaluation and training.

The agencies will want to decide whether a certain number of training slots should be made available to each agency since they are jointly funding the supervisor's position or whether openings should be filled on a first come, first served basis regardless of referral source. (We recommend starting with the latter until this causes a problem.) They will want to work out referral and selection criteria and will want to determine their respective roles, if any, in screening and choosing program participants. Should this be done by committee or delegated to the HIP supervisor?

Of particular importance is participation by the cooperating agencies in job placement once the training is complete. The rehabilitation agency particularly, should be primed for this function as it probably has the best network of potential employers. While job placement within the hospital is frequently a natural outgrowth of the training, it should not be expected and certainly not required. The cooperative agencies should be scouting out parallel job opportunities as the client approaches completion of the training.

In the demonstration sites staff has found that referring agencies often had low work expectations of the client. Even the family could not envision the person holding down a normal job. Naturally, these attitudes can work against the program's aims. It is crucial that the person, the family, the cooperating agencies and the hospital all are convinced that work is a viable goal. As such, responsibility for job placement must be addressed up front.

"Referring agencies often had low work expectations of the client."

Identifying and Analyzing Jobs

Before referrals are received, the HIP supervisor and personnel staff should work together to identify and analyze the jobs in the departments where clients will actually be placed. In the model project staff found that dietary, housekeeping, food service, laundry and environmental services were the areas that initially met the criteria of having high turnover, high absenteeism and a level of functioning in which the trainees could be expected to perform.

The HIP supervisor needs to meet individually with any department head involved to review all aspects of the job. The supervisor should attain a job description and arrange for or perform the job analysis.

In some communities of the demonstration project, the HIP supervisor knew how to do a job analysis. In others s/he didn't. Training the HIP supervisors in this function assisted them to learn more readily the demands and intricacies of the work setting. Collecting the information was very time-consuming, however, because some supervisors were mastering the job analysis technology at the same time that they were trying to implement it. As a result, job analyses often were not completed by the time the people were ready to be placed.

Another problem was the frequent changes in job duties, particularly in food services, which necessitated major changes in the initial job analysis. For example, certain dietary aides had nine or ten distinct positions they could work in during the course of a week. Frequently elements of those jobs would change or positions would be combined or eliminated. The problem was resolved by treating jobs with multiple responsibilities as separate entities.

If site supervisors do not know how to do job analysis, the hospital has various options. One is to have the supervisor trained in this skill. Training can often be obtained from an individual at the vocational rehabilitation agency, from a university, or job training program. A second is to arrange for someone from rehabilitation to come to the hospital to perform the service. This can be planned when negotiating the roles of each agency and the letter of agreement. A third is to hire a private vocational evaluator to perform the job analysis on a consulting basis. Again, the cost needs to be considered in the initial negotiations. A fourth is to use someone else on the hospital's own staff who is familiar with the procedure.

Exhibit 6 shows a typical hospital job description. While it provides a good starting point in explaining the position, it lacks the detail important for a disabled worker in relation to physical demands, and environmental conditions. It does not indicate, for example, strength requirements, duration of walking, standing and sitting or visual demands. The aim of job analysis is to identify the specific tasks that must be done, the techniques or processes needed to complete them and the worker characteristics required.

The Department of Labor (1982) notes, "as jobs change and become more varied and complex, the use of job analysis remains vital to the development of training programs, in the preparation of clear information for job seekers, and in the adaptation of tasks and equipment to the capabilities of the handicapped." While a job analysis need not be overly complex, it must be done both to assure a proper match between trainee and job, and to clarify in the supervisor's own mind what needs to be taught to assure adequate job performance.

There are various methods for performing job analyses, but in the demonstration sites task analysis was found suitable, particularly when working with cognitively impaired people. With task analysis the job is divided into the specific components or tasks that need to be performed. In addition, it is studied in the context of other jobs in the organization. Job analysis identifies and describes in a systematic but succinct manner: what the worker does (activities or functions); how the work is done (methods, techniques, processes) and the tools or machinery necessary; results of the work (goods produced, services rendered); and worker characteristics (skills, knowledge, abilities) in terms of the environment of the job and the organization as a whole.

Job analysis should produce a clear description of:

- ***physical demands*** — whether the job entails walking, lifting or stooping;
- ***mental skills*** — whether the job entails reading, calculating and writing;
- ***stress*** — whether the job entails repetition and pressure;
- ***time constraints*** — whether the job entails fast turn around and many deadlines;
- ***tools and machinery*** — what kind of equipment is to be used;
- ***physical surroundings*** — whether the job has noise, dust and good ventilation (see also Pati & Morrison, "Enabling the Disabled" Harvard Business Review July-August 1982).

Exhibit 6

Typical Hospital Job Description
Food Service Worker

Definition:

Performs routine and repetitive duties in assisting cooks, bakers and other food service personnel in the preparation of meals, cleaning of cooking and serving utensils and work areas; may be expected to perform other custodial or housekeeping duties upon assignment; does related work as required.

Distinguishing Characteristics:

Works under the immediate supervision of a superior.

Minimum of judgement and resourcefulness required as duties are performed under immediate supervision with standardized application of procedures effected.

Makes limited contacts beyond immediate associates in the performance of required duties.

Exercises no supervision over other employees.

Some effort required to detect errors which could affect the work of others; attention and discretion are required in preventing errors which might result in damage to kitchen equipment or possible injury to personnel.

Some physical effort demanded in lifting heavy containers such as bags of flour, crates of fruit and canned goods; work being performed under typical kitchen conditions with exposure to excessive heat, noise from machines and kitchen odors.

Examples of Work:

Assists in the preparation of food and serving of meals. Cleans serving and cooking utensils, work and eating areas. Runs dishwashing machine, mixer or doughnut machine. Prepares fruit and vegetables; sets tables. Makes beverages such as coffee and tea. Prepares trays in food. Assists in the distribution of foods. Stores food in refrigerator and vegetable cellar. May receive cash and make change as appropriate from cash register in payment for food purchased in cafeteria-type operations. Performs other custodial or housekeeping duties as assigned.

Minimum Qualifications:

1. Completion of eight years of grammar school or its equivalent.
2. No experience required.
3. No special knowledge, skills or abilities required, except clean personal health and sanitation habits.

In the demonstration, staff modified a US Department of Labor publication, *A Guide to Job Analysis: A How-to Publication for Occupational Analysis* (Division of Occupational Analysis, March, 1982) for the job analyses. They added a section on the work organization as suggested by Paul Lustig in *Differential Use of the Work Situation in the Sheltered Workshop* and a more thorough analysis of physical demands as suggested by Lytel and Botterbusch in *Physical Demands Job Analysis: A New Approach*, (Materials Development Center, University of Wisconsin, Stout). Lustig says it is important to review not only work location, rates of speed and so forth but also interpersonal work relationships.

Lytel and Botterbusch say that an analysis of physical job demands must consider common postures used; height and weight required to manipulate objects; speech, hearing and visual requirements; driving and/or machine control placement; strength requirements; duration of walking, standing and sitting requirements, among others. In addition to the detailed analysis staff prepared a short job summary which provided a quick glance at the requirements. Please see Exhibit 7 for the summary job analysis format.

Exhibit 7

Physical Demands Job Analysis

Employer Job Title ______________ DOT Title & Code ______________

Supervisor ______________ Telephone ______________

Company Name & Address ______________

____

Job Summary ______________

____

# of employees in same positions at work unit: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 or more

# of employees in other positions at work unit: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 or more

Enrivonmental and Social Conditions Form

☐ 1 Inside
☐ 2 Ouside
☐ 3 Heat
☐ 4 Cold
☐ 5 Wet
☐ 6 Noise
☐ 7 Vibr
☐ 8 Mech
☐ 9 Electric
☐ 10 Hot
☐ 11 Rad
☐ 12 Vent
☐ 13 Mov Ob
☐ 14 Sharp
☐ 15 Floor
☐ 16 Elevat
☐ 17 Light
☐ 18 Fumes
☐ 19 Others
☐ 20 Around
☐ 21 Alone
☐ 22 Supervision
☐ 23 Violent
☐ 24 Shifts
☐ 25 Equipment

Task Analysis Form

Most Common Posture

☐ 26 Walking (or mobility)
☐ 27S ☐ 28 Standing
☐ 29 Sitting
☐ 30S ☐ 31 Stooping, Crouching or Kneeling

Height and Weight in Manipulating Objects

FOUR FEET OR MORE	BETWEEN FOUR FEET AND 18 INCHES	LESS THAN 18 INCHES
☐ 32 0-5 lbs.	☐ 38 0-5 lbs.	☐ 44 0-5 lbs.
☐ 33 0-10 lbs.	☐ 39 0-10 lbs.	☐ 45 0-10 lbs.
☐ 34 0-25 lbs.	☐ 40 0-25 lbs.	☐ 46 0-25 lbs.
☐ 35 0-50 lbs.	☐ 41 0-50 lbs.	☐ 47 0-50 lbs.
☐ 36 50+ lbs.	☐ 42 50+ lbs.	☐ 48 50+ lbs.
☐ 37S Storage	☐ 43S Divisibility	☐ 49S Storage

Handling Objects

50S 51 Manipulating - Both

52 Manipulating - Either

53S 54 Reaching over 15 Inches

55S 56 Reaching above the Shoulder

57S 58 Fingering

59S 60 Lifting Bulky Objects 24 Inches or More Wide

Moving Objects

Carrying:
61 1-5 lbs.
62 1-10 lbs.
63 1-25 lbs.
64 1-50 lbs.
65 50+ lbs.
66 10 lbs. Beyond 30 Feet
67 Divisibility

68 Push/Pull-One Hand
69 Push/Pull-Two Hands
70 Push/Pull-Unequal
71 Storage

72 5-10 lbs.
73 5-25 lbs.
74 5-50 lbs.
75 50+ lbs.

Speech and Hearing

76 Speaking in Person
77 Hearing in Person

78 Speaking on Phone
79 Hearing on Phone

80 Conversation 50% of Time With the Public
81 Hearing - Full Acuity

Driving and/or Machine Control Placement

82 Left Hand Control
83 Right Hand Control

84 Foot Controls/ Pedals

85 Treading While Sitting
86 Treading While Standing

Infrequent Actions

87 Climbing With Legs Only
88 Climbing With Arms & Legs

89 Twisting the Head
90 Twisting the Back

91 Must Crouch
92 Must Stoop
93 Must Kneel

94 Crawling
95 Reclining
96 Jumping

97 Rushing
98 Running
99 Throwing

Visual Demands Checklist

COMMUNICATION
100 Reading & Writing
101 Working Distance
102 Regular Format
103 Mentoring

MEASUREMENT/MANIPULATION
104 Established Method
105 Measuring Devices

MOBILITY
106 Driving
107 Walking
108 Safety Hazards

Classification by Strength Requirements Form

DOL Strength Categories

109 Sedentary
110 Light
111 Medium
112 Heavy

Duration of Walking, Standing and Sitting

Walking	113	114	115	116	117	118	119
Standing	120	121	122	123	124	125	126
Sitting	127	128	129	130	131	132	133

Extended or Heavy Demands

134 Voice
135 Voice

136 Shoulder
137 Back & Knees

138 Whole Body
139 Whole Body

Driving

140 Assigned
141 Regular-Assigned
142 Short Trips
143 Major Duty
144 Central
145 May Use Own Vehicle

Physical Barriers Form

146 Parking
147 Route
148 Sign
149 12 Feet

150 Ramp
151 48" Wide
152 Slope
153 Handrail
154 Landings

155 Entrance
156 Door
157 32" Wide
158 Space
159 Threshold

160 Elevator
161 Access
162 Floor
163 Controls
164 Braille

165 Floors

166 Door
167 Handles
168 Threshold
169 Passage
170 Obstruction

171 Rest Room
172 32" Wide
173 Passage
174 Vestibule
175 Sink
176 Controls

177 Stall
178 Door
179 36" Wide
180 Distance
181 Grab Bar
182 Parallel

183 Fountain
184 Clearance
185 Controls

186 Telephone
187 Public
188 54"
189 30" Wide

190 Travel

Comments

Job Analyst ________________________

Reviewed by ________________________

Date of Job Analysis ______________

Bringing Trainees Aboard

To initiate the program the hospital will need mechanisms for:

- Receiving referrals, interviewing candidates and selecting trainees
- Placing trainees in job sites in which there are openings
- Working closely with them to ward off early failures
- Determining their compensation during the evaluation and training periods.

Each activity is discussed below.

3

Bring Trainees Aboard	*Receive Referrals and Select Trainees* *Place on the job* *Ward off early failures*

Receiving Client Referrals

At the point the project is ready to accept people into the program, cooperating agencies should be ready to refer clients to the selection committee. The selection committee may be as small as one person, the site supervisor, or as large as a handful including a hospital representative from personnel, the liaison people from the cooperating agencies, and other interested parties.

The committee will want to commit its criteria for program participation to writing.

Selection criteria used in the demonstration sites were:

- that the person was a Bureau of Rehabilitation client
- that a description of any completed vocational evaluation, training or employment was included in the application,
- that transportation or other services vital to successful employment had been arranged, and
- that a contact person from the referring agency was identified.

With this basic information, the completion of an intake form as shown in Exhibit 8, and a personal interview with the applicant, the selection committee determined whether the person was appropriate for the program. During the interview the committee explored what kinds of jobs the person was interested in and what physical, mental or emotional conditions may impede the successful training on a job. If possible, a vocational evaluator participated in interviewing and screening candidates. The requirement that the person be a rehabilitation client assured that he or she had completed some or all of the following: job skills training, work adjustment training, work evaluation, and individual counseling. Also rehabilitation clients are eligible for many kinds of supportive services.

Some variations in the referral process and selection criteria occurred in the state and federal facilities. Priority was given to people who were themselves hospital residents. In-house mental health and developmentally disabled patients whose discharge planning was in progress took priority in program acceptance. Later, referrals were also considered from the forensic population at the hospital and the mental health and developmental disability populations in the community. Caseworkers or counselors identified in-house individuals viewed as potentially employable and referred them to the rehabilitation department. Community referrals were directed to the local vocational rehabilitation office. The rehabilitation counselor gathered available medical and psychological reports and, if possible, ascertained vocational testing. He also assured that applicants had transportation, housing, and supportive therapies arranged. The perspective client/employee was expected to be motivated and potentially able to enter the work training program with a form of competitive employment as a goal.

Exhibit 8

Sample Hospital Industries Intake Form

SITE:

NAME: TELEPHONE: DATE OF BIRTH:

ADDRESS: MARITAL STATUS: SEX: MALE: FEMALE:

SOCIAL SECURITY NUMBER:

PERSON TO NOTIFY IN CASE OF EMERGENCY: TELEPHONE:

REFERRAL INFORMATION

REHABILITATION COUNSELOR: DATE OF REFERRAL:

REFERRAL SOURCE: DATE OF ACCEPTANCE:

DISABILITY DIAGNOSIS

PRIMARY: MEDICATIONS:

SECONDARY: APPARATUS:

LIMITATIONS:

MOBILITY:

CURRENT SUPPORT SERVICES: AGENCY INVOLVEMENT:

EDUCATION/WORK HISTORY

HIGHEST GRADE COMPLETED: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 DIPLOMA/DEGREE:

TRAINING EXPERIENCE:

LAST EMPLOYER POSITION HELD LENGTH OF TIME REASON FOR LEAVING

ISSUES

BEHAVIOR:

PHYSICAL:

TRANSPORTATION:

HOUSING

TYPE OF RESIDENCE: FAMILY HOME: GROUP HOME: INDEPENDENT: SUPERVISED:

OTHER:

FINANCIAL INFORMATION

INCOME SOURCE:

BENEFITS: (SSI, SSDI, MEDICAID/MEDICARE, ETC.)

DATE STARTED EACH:

OTHER:

Selection can be a complex and difficult task. On the one hand, the committee will be tempted to choose people it feels confident can succeed. Especially in the early stages of the project, it will want to avoid failures. On the other, to test the true validity of the approach, it will want to select those who may never have as good an opportunity again — not just the safe applicants, but the ones for whom the program can make a difference. Factors such as current motivation may be weighed higher than past failures.

"If the person is highly motivated, that can offset a behavior-problem in the past."

Following the case examples of people accepted in the demonstration sites.

Susan, 19, Emotional Disorder

Susan's primary disability was an emotional disorder. She was living at a residential treatment center before being referred to Hospital Industries by the rehabilitation agency. Placed in the food service division of the HIP program, Susan progressed rapidly over a six-month period. She is now living in her own apartment and is working full-time for an electronics firm.

Henry, 26, Severely Learning Disabled

Henry is severely learning disabled. When he started the Hospital Industries, he was living at home with his mother and sisters. He began working part-time in the food service division and had mild success. He was assigned Monday-Friday to the waste removal position which eventually turned into Wednesday-Sunday with an increase of five hours per week. He then demonstrated an ability to work independently and expressed an interest in the Housekeeping division where he was transferred to a 40-hour position on the second shift. After a three month training period, he was hired on a part-time basis there. He is currently married and living in an apartment with his wife.

The referral processes resulted in many kinds of people being served by the demonstration. The following chart illustrates the kinds of disabilities and the numbers in each group over a two-year period.

Kinds of Disabilities and Numbers Served

Disability	Primary	Secondary
Retardation	19	5
Cerebral Palsy	5	-
Psychiatric Disorder	5	10
Seizure Disorder	4	1
Visual Disorder	3	1
Learning Disabled	2	1
Hemiparesis	2	-
Amputation	1	-
Alcoholism	1	1

Placing Trainees

Once a person is accepted, the HIP supervisor works with him or her to make the best possible work assignment, matching the demands of the job with the capabilities of the individual. This process is not an exact science and room is always needed for adjustment. In fact, it is desirable to rotate the person's job functions for multiple experiences.

The day the person is placed in sheltered employment for job evaluation, s/he becomes a hospital employee, receiving a physical examination, uniform and employee identification card. If no opening exists, the site supervisor and client select a perspective work area and await an opening.

The HIP supervisor may actively try to develop a position if s/he finds a candidate who has unique attributes or desires for a certain kind of job. The supervisor has to draw a fine line between being an advocate for the trainee and a sensible hospital employee. If the hospital is rigid in its commitment to HIP, it may not wish to be approached continually for new jobs. If it is more flexible, the staff may be quite willing to look at additional possibilities as promising candidates emerge. One of the more aggressive supervisors in a demonstration hospital observed, "You can't wait for a job opening to show up in personnel. By then it's usually filled. You have to go right to the department head."

In the demonstration, every hospital was different in how the staff approached developing more hours or additional jobs. The foremost criterion was whether the quality of work was equal or better in the jobs that were initially provided. Beyond that, there was not a clear pattern.

If the hospital does not have a time study for the perspective job, the HIP supervisor should conduct one to determine levels of productivity. This is done with an employee who presently performs the job. This methodology is described in a section below, Determining Compensation.

Warding off Early Failures

Many circumstances can pose stumbling blocks for people who are not used to working. One site supervisor in the demonstration project reported a person who cut his finger in the dietary area, ran away and hid in another part of the hospital because he was afraid of losing his job. Another person reported a client becoming intimidated because labor union representatives were trying to organize the hospital and he didn't know how to respond. A third had trouble with transportation and didn't realize he was supposed to call in to the supervisor to report the problem. These kinds of situations can create failures which are relatively easy to correct. The major remedy is for the site supervisor to be in steady and constant touch with each individual.

If possible, the supervisor should also find a few minutes to speak to a person when he is not performing his job functions to see how things are going and to discuss his attitudes about the job. If, during the course of working, the person appears to be anxious, upset, or angry about something, the supervisor may take him aside for a few minutes, explore the problem, and work with the trainee to resolve it. Sensitivity, communication, proximity, all are important. Like any employee, these workers occasionally have problems with coworkers. One site supervisor reported, "I had two men in housekeeping who were cleaning patient rooms. They were being picked on. Women's work. Sexist. I had to move them."

The supervisor will want to have family contact as needed, and to explore the person's attitude at home. Has he expressed any concerns or fears? What are the positive attitudes that can be built upon?

Helping participants to communicate with others in their same circumstances may resolve problems. If there are enough trainees, the supervisor might develop a work support group. The supervisor may gather the group after working hours, perhaps once a week, both to exchange information and to socialize.

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Conducting Evaluation and Training

The fourth phase of the model is to provide evaluation and training within the hospital. The steps here are:

- Delivering on-the-job evaluation and training
- Determining compensation and adjusting wages accordingly
- Monitoring reactions of fellow workers and supervisors.

Each is discussed below.

4

Evaluate
and
Train

Deliver on-the-job training
Determine compensation
Monitor coworkers' reactions

Delivering on-the-job Evaluation and Training

Traditional approaches to vocational evaluation use people to identify specifically what the individual is capable of doing and with equal specificity a job that matches the client's capabilities (Peter and Jones in Schalock, 1979). Used in this context, evaluators attempt to make predictions based on the abilities the person possesses when he walks through the door. The problem with many disabled is that they often do not have satisfactory skills at the time of assessment to use a predictive model (Schalock, 1979). Hospital Industries combats this problem by allowing up to six months in evaluation, a period in which the person is exposed to several skill areas and has the time to develop his potential.

During evaluation, the supervisor provides a structured learning situation for the worker by teaching and demonstrating each component of the job. This may take days or weeks depending on the complexity of the job, the number of work stations involved, and the kinds of equipment required, as well as the abilities of the trainee to grasp what is being taught.

The supervisor informally evaluates various aspects of the trainee's work from the first day. Can the individual comprehend instructions? Can s/he carry them out? How does the person react to a new environment? What behaviors characterize his or her adjustment? Observations such as these should be handwritten or tape recorded periodically.

As time goes on, the supervisor will be evaluating all aspects of the person's behavior and abilities. The job analysis itself can serve as a benchmark against which the observations are recorded.

Some of the elements that should be incorporated in the on-going evaluations are the person's ability to:

- Follow verbal and/or written instructions and demonstrations
- Perform repetitive tasks
- Change tasks, handle multiple tasks
- Perform physical activities, such as standing, bending, reaching
- Sustain effort for an extended period of time
- Get along with other workers and supervisors
- Accept criticism
- Achieve acceptable levels of productivity.

During evaluation, the person should be rotated to various job stations to get as many vocational experiences as possible.

Increased options in the evaluation phase permit a more complete picture of abilities. Combining jobs and identifying specific tasks allows the best chance of success in pinpointing skill areas.

It is important constantly to test the limits of the person's abilities. Too often, with this population, we observe the attitude, ''Great, he can stack dishes, we've got him for life.'' It may take days, weeks, or months for the individual to reach full potential, but HIP is one opportunity to motivate, to raise expectations, to demonstrate what may have never before seemed feasible.

Evaluation and training provides the opportunity for an individual to build a work history, an element sorely lacking in many disabled people's backgrounds. By documenting all the skills the person has acquired and the tasks he can perform, HIP is arming the trainee with strong ammunition that can be put to use in a job search. Employers prefer an honest appraisal of a person's capabilities, showing both strengths and weaknesses, to an unrealistic picture.

By demonstrating that he has stability and perseverance to maintain a good record of attendance over a period of months, HIP helps to overcome another of the employer's greatest fears: absenteeism. By demonstrating that the person's safety and breakage are not problems, HIP greatly enhances the individual's future job possibilities. A reference at the hospital can also attest to the individual's general work behavior and attitudes.

Evaluation and training can be thought of as concurrent activities to the extent that the person learns a job at the same time his current or future potential is being evaluated. HIP draws a distinction between the two, primarily to the degree that evaluation requires closer monitoring and supervision.

Six months is the DOL limit placed on evaluation, although in the demonstration sites, supervisors tried to move people into the less structured training situation sooner. If, after three months, the person had not progressed, then a more formal evaluation was conducted and a longer term employment goal set. This process is explained in a subsequent step, Moving People to Long-term Employment. Beyond evaluation, people had an additional twelve months in the training stage.

Determining Compensation

Compensation is based on productivity or output. The HIP program starts with the assumption that the person can perform at a minimum of 25 percent of normal productivity on the first day of the job. The person can increase his productivity, based on the way others perform, and thus increase his pay as quickly as he is able.

HIP uses time studies to measure productivity. In the demonstration, this was found to be the most appropriate, fair and cost-time effective approach. While much information on time studies was available, project staff narrowed the search to those methods used with hourly workers and rehabilitation settings that were also compatible with competitive industrial expectations.

Time studies generally were conducted in 20 minute intervals. For example, a non-handicapped worker in the dish washing operation was observed over time in each of the ten positions included in the study, as was the trainee. Rough estimates of quality, rate of performance, and quantity, were considered.

The total number of units completed during the study were divided by the twenty minute time periods to determine the average units per minute and then multiplied by a fifty minute work hour, allowing ten minutes of non-productive time. This method initially provided the commensurate wage of the handicapped worker. Because it included not only production, but also quality, it served as a strong tool for building incentive, motivation, and overall accountability.

Time studies should be conducted every week or two, especially if the supervisor believes the rate of productivity is increasing. The method of determining compensation, using a time study formula, is presented in Exhibit 9.

Exhibit 9
Time Study Formula

The following formula can be used on most hourly and piece-rated jobs. It takes into account both quantity and quality factors; attendance, punctuality and safety can be computed into the wages.

Step 1. After the job has been analyzed, determine the percent of the total job that each major task constitutes. For example in a dishwashing operation, there may be ten distinct tasks of equal magnitude, each representing 10 percent of the job.

Step 2. Multiply the percentage from Step 1 times the *prevailing wage* (PW) to determine the *rate of pay* (RP) for that task, e.g., .10 x 4.00 (PW) = .40 (RP).

Step 3. Determine *rate of time or production standard* for each task based on non-handicapped worker's performance (X). Usually 5 observations are sufficient for tasks lasting 20-40 minutes (refer to "Approximate Observations for Confidence in Results" chart).

Step 4. Determine rate of time or production standard for tasks performed by the handicapped worker (Y).

Step 5. Divide non-handicapped worker's rate (X) to determine handicapped worker's *percentage rate of time or production* (Z) e.g., 25 (Y) divided by 100 (X) = .25 (Z).

Step 6. Multiply *handicapped worker's rate* (Z) times quantity rating (B) to determine *actual quantity rating* (C). This rating is the reflection of the percentage that quantity is weighed in the overall assessment of a worker's performance. If the industry/employer views quantity as the most important factor of the job, this rating will be high (e.g., 90 percent).

The equation would then look like this: .25 (Z) x .90 (B) = .1845 (C).

Step 7. Determine rate of quality (A) and multiply *times* quality rating for the job (D) to determine *actual quality rating* (E). The rate of quality is based on whatever the quality factors are for the particular task. Usually provided by the employer, it should also include such factors as: safety, grooming, and punctuality. The quality rating depends on how important quality is to the execution of the task and overall job.

The equation would then appear as follows: .75 (A) x .10 (D) = .075 (E).

Step 8. Add actual quantity rating (C) and actual quality rating (E) to determine *actual task percentage* (F), thus .1845 (C) + .0750 (E) = .2595 (F).

Step 9. Multiply actual task percentage (F) times the rate of pay (RP) to determine *task rate of pay* (TR), or as follows: .2595 (F) x .40 (RP) = .1038 (TR).

Step 10. Add up all task rates of pay (TR) to determine commensurate wage (CW) as in: TR + TR + TR + etc. + CW. The formula viewed in its entirety would be as follows:

% job task x PW = RP
Y divided by X = Z
Z x B = C
A x D = E
E divided by C = F
F x RP = TR
TR + TR + etc. = CW

Approximate Observations for Confidence in Results

Time Per Job Performance	Approximate No. Observations Needed
Over 40 minutes	2
20 to 40 minutes	5
10 to 20 minutes	8
5 to 10 minutes	10
2 to 5 minutes	15
1 to 2 minutes	20
3/4 to 1 minute	30
1/2 to 3/4 minute	40
1/4 to 1/2 minute	60
1/10 to 1/4 minute	100
Under 1/10 minute	200

1 + 5 Percent Confidence
Source: *Service Engineering Associates, 3960 Peachtree Road, Atlanta, Georgia, 30319*

Monitor Coworkers' Reactions

It is normal for supervisors and coworkers to possess fear, resentment or anxiety about the introduction of the HIP program into the hospital. Department supervisors may be anxious that productivity will lag or that the new people will demand excessive amounts of their time. They are concerned about department morale and the effect the trainees may have on existing workers. If they realize that some of the people have had emotional problems which have prevented them from working productively in the recent past, coworkers may worry about the people's behavior or attitudes. They may even fear that some harm may be brought upon them.

If they think the trainees function below average on an intellectual basis, they may resent doing the same job. One site supervisor in the demonstration noted, "Some hospital employees did not want to work near them at first. It was a blow to their ego to think a retarded person could do the same job." Still others may be anxious about whether the new people will be accident prone, whether they will spoil the atmosphere of the work area, and whether the non-disabled people will be expected to do more to compensate for the new workers' inadequacies.

While it may be useful for the HIP supervisor and the regular department supervisor to address these concerns openly, the demonstration hospitals found that many of the worries dissipated a few months into the experiment. As a matter of fact, one HIP supervisor reported that the coworkers were worried that the new people, paid a minimum of 25 percent of prevailing wage, were not being adequately compensated. "Some coworkers were concerned at first over the low wages — that we weren't paying these people enough. Then they realized the pay increased with productivity." Other coworkers were anxious to help with the training itself. They wanted to demonstrate the tasks and respond to questions. One site supervisor who noted this positive attitude did in fact seek such assistance. "They're proud that you asked," she reported.

In order to monitor more formally the reactions of supervisors and coworkers, the HIP project adminstered a brief attitude survey six months into the project. An example is shown in Exhibit 10.

Exhibit 10

Attitude Survey

The attached questionnaire's purpose is to elicit feedback on the Hospital Industries program currently operating at this hospital. Your open and honest responses to this inquiry will by helpful in better serving the trainees.

1. I feel there has been a decrease in production in the dishwashing area since the start of the program.

______	______	______	______	______	______	______
1	*2*	*3*	*4*	*5*	*6*	*7*
Strongly Agree					*Strongly Disagree*	

2. There have been no problems between the workshop employees and the regular staff.

______	______	______	______	______	______	______
7	*6*	*5*	*4*	*3*	*2*	*1*
Strongly Agree					*Strongly Disagree*	

3. There have been no criticisms about the program from the regular staff.

______	______	______	______	______	______	______
7	*6*	*5*	*4*	*3*	*2*	*1*
Strongly Agree					*Strongly Disagree*	

4. There has been an increase in dish breakage and machine breakdown since the program started.

______	______	______	______	______	______	______
1	*2*	*3*	*4*	*5*	*6*	*7*
Strongly Agree					*Strongly Disagree*	

5. Overall, I feel the program is a success.

______	______	______	______	______	______	______
7	*6*	*5*	*4*	*3*	*2*	*1*
Strongly Agree					*Strongly Disagree*	

6. I feel that this program could be improved and run more efficiently.

______	______	______	______	______	______	______
1	*2*	*3*	*4*	*5*	*6*	*7*
Strongly Agree					*Strongly Disagree*	

This attitude survey is designed as a probability-monotone test (summative model) using normative measures (absolute responses). This type of attitude survey may be called a Likert Scale.

Normative measures not only represent results which estimate the amount of an attribute possessed by the examinee but also allows comparisons across examinees. Thus, normative measures are appropriate when the goal is to scale responses: i.e., to place them on a continuum of an attribute being measured.

Not only was the response uniformly positive, the very act of obtaining these people's opinions created goodwill for the program. Such a survey creates a context for dialog about any issues or problems that may be present. It also provides a means of documenting the program's acceptance, which can be shown to other departments or hospitals as new positions are being developed.

In the demonstration sites, department heads often evolved into the greatest supporters of the program. One department head used the following words to describe his experience with Hospital Industries.

Department Head Testimony

"We try harder," an advertising slogan used by the car rental company in the number two position accurately reflects the attitude of handicapped employees who enter the workplace. Driven by a compelling need to be "normal," to be employed as their non-handicapped friends and family are, employees who are handicapped offer the employer work ethics and attitudes often not found with "number one" employees. The second choice position previously held for the handicapped motivates this human resource to try harder, work better and offer a general work ethic equal to or greater than the traditional workforce.

After three years with handicapped employees occupying 11 percent of the workforce in the Maine Medical Center Food Services Department, we are convinced about the viability of this workforce. They are motivated, arrive on time, work hard, have positive work attitudes and they smile a lot. What more can we ask? Of many anecdotes that happen over time, one comes to mind that demonstrates why handicapped employment is good business. Sheldon was one of our first handicapped employees and, in fact, continues with us today. Shortly after he started with us, his habit of arriving at work half an hour before his shift began proved to be prudent although not necessary. He realized upon arrival that he had left his identification badge at home and informed us that he would return home to pick it up. We explained that we would not require him to go home due to the near blizzard conditions outside.

He insisted, however, and three minutes before his shift began he reappeared covered with snow but in full uniform! His commitment to be in uniform every day has served to motivate the rest of our staff to be in uniform on a more consistent basis.

Many myths accrue to the employment of handicapped persons. The most common misbeliefs are that handicapped workers have higher than average accident rates, higher than average turnover, more sick time and they are difficult to train. These simply are not true.

Maine Medical Center employs 14 handicapped workers in our food service department. Their accident rate is 2.06 per 1000 hours worked while the department average is 2.01. Handicapped turnover has been 0 percent per year while the department average is 27 percent. Sick days are 3.5 per year compared to 6.5 for their non-handicapped peers. Time spent on training is similar for all employees. Occasionally we spend a little longer with a handicapped employee reinforcing a particularly difficult technique. However, the amount of retraining is significantly less than other employees doing similar work.

The only significant difference between the handicapped and non-handicapped worker for tasks that they are equally prepared for is an occasional modification or adaptation of the physical environment. Sometimes this is as simple as graphic training aids in lieu of written materials. Other times, special tools or devices may be required to improve working efficiency.

Accessibility can also be a problem, especially for employees in wheelchairs who may require ramps or elevators. Most states will provide assistance in locating and often paying for these accommodations.

In virtually every situation where a handicapped employee is put to work, a "Win/Win" situation generally evolves. The employer retains a willing, able, loyal, motivated employee who is willing to learn and attend to the rules of the workplace. The employees can become fully integrated into society, earning a paycheck side by side with his/her peers, gaining a sense of importance and freedom from governmental support programs.

One of the best moments of my life was the day we presented paychecks to our first group of handicapped workers. Several had dressed up for the occasion: all were beaming with pride and I felt really good about my job and our hospital. It was a rare moment in a professional career. Everything had gone as planned, the work done on time and well, and we had provided some very special people with some happiness and pride."

Robert F. Underwood
Maine Medical Center
October 1984

Another department supervisor wrote the letter shown in Exhibit 11 to attest to his satisfaction with the program.

Exhibit 11

Hospital Supervisor's Letter

Michael P. Kotch
Project Director
Hospital Industries Project
Maine Medical Center
Portland, Maine 04102

February 27, 1984

Dear Michael,

As you know I have asked that the Hospital Industries Project here at Goodall Hospital be expanded to Saturdays and Sundays as well as weekdays beginning on March 10. This expansion will not only benefit the Dietary Department, it will also open up another position on the evening shift in the dishroom for Hospital Industries to fill.

The quality of work done by Hospital Industries employees has been as good if not better than many previous part time employees, there has been no breakage in the dishroom since the project was implemented. On the job behavior has been excellent, horse-play in the dishroom is far less prevalent than it has been in the past. The new employees have been prompt and efficient.

Please call if you have any questions or concerns.

Sincerely

Ed Maurais

Ed Maurais
Director of Dietary
H.D. Goodall Hospital

Moving People to Long Term Employment

The key steps in the fifth and final phase of the model are:

- Selecting an employment goal
- Helping to implement the goal
- Rejoicing in Outcomes

5

Move People to Long-term Employment

Select Employment Goal
Help to Implement Goal
Rejoice in Outcomes

Selecting Employment Goal

In the section above, we indicated that by completion of the third month in the program, and often much sooner, the participant should be ready for a more formal assessment, both of the job he has done to date and of his longer term potential. This does not mean necessarily that the trainee will be moving on to achieve his objectives at this time, but rather that some preliminary goals are set. This more formal evaluation, which is organized by the site supervisor, involves many individuals with whom the participant has come in contact.

At this critical phase, past and present information about the participant should be integrated: medical and psychological reports; information on previous job training or job experience, the supervisor's assessment of motivation, strengths, weaknesses, and attitudes towards work. In addition, recent time study and other related performance factors as well as an independent evaluation by the front line supervisor should be considered. In short, the client evaluation should be an objective and subjective performance review consistent with that received by other employees.

The purpose is to make some judgments both about the person's earning potential and the location and nature of his employment.

Earning potential—if the person should be maintained in a work center or sheltered environment (implying close supervision and subminimum wage) for the balance of the training period which can last up to 12 months after evaluation is completed; or alternatively, if the person should be expected to advance to prevailing wage in the near future.

Location of employment—if the person should rotate to other jobs within the hospital; where, upon completion of training, a person is likely to be employed. It is possible for the earning potential to be subminimum, but for the location of training to change and vice versa.

As the training period progresses, the staff will want to work with the individual to review and update the longer term employment goal.

Initially, staff in the demonstration sites thought that the options would be competitive employment either within the hospital or a comparable employment site or sheltered employment under a special worker's certificate in the hospital. They discovered there were in fact many possible outcomes for training participants. These were:

Competitive Employment—Based upon the work history that has been developing, the experience obtained and the demonstration of successful ability, the person was able to secure competitive work either on his own or with the assistance of a job placing agency or the HIP supervisor. This employment may have been a regular full- or part-time job in the hospital or elsewhere.

Sheltered Employment—If the person could not in the near future be expected to work as productively as other typical workers, but had the ability to maintain steady employment and the desire to work, a sheltered employment position was sought. Sheltered employment connotes subminimum wages, although the work setting can be anywhere. It was possible to develop sites in the hospitals where HIP employees received special worker's certificates to permit long term employment at reduced wages. In some instances, initially the hospital selected a job in which two people could share, each receiving half the minimum wage with their total productivity equalling one full-time person. Schools, municipal and state government, nursing homes and private industry can all be considered candidates for work center employment. If necessary, traditional sheltered workshops may be considered, although this was not encouraged especially if the individual came from a workshop initially.

Additional Training Needed—The person was ready to accept either more sophisticated or formal training than could be provided by the HIP site supervisor, or the particular training desired was not available in the hospital. Here additional training was sought from private industry under OJT contracts or vocational programs.

Unemployment—The person was motivated and looking for work but had not found any yet. All efforts should be made to assist the person to locate employment in the first three months after training while the experience is still fresh and the motivation strong.

Unable to work—A complication in the disability rendered the individual incapable of working at that time.

Unamenable—After participating in the evaluation and training the person was disinterested in securing employment or receiving additional vocational rehabilitation services.

Interference—The family interfered in the training or job placement process and would not allow it to continue. Unfortunately, money sometimes acted as a deterrent to families in letting the job search go on. Disabled people who are unemployed are often recipients of various forms of financial aid. In dependent situations, the families often received and managed the money. As the trainees became independent, they began to take control of these matters. Occasionally the families found ways to stop the process and maintain control.

Helping to Implement Goal

Ideally, any placement should be made while the person is still in training. Occasionally, the training period can be extended while the job search is under way. However, it is all too easy for the individual to go home and regress before a job can be found. This is particularly difficult on the person whose hopes have been raised and should be avoided whenever possible.

Referring agencies must be aware from the beginning that the goal of evaluation and training is competitive employment and that they will be expected to take the lead in the job search. While site supervisors should not be held accountable for job placement, there are common sense things they can do to help. One supervisor continuously checked the want ads to see the kinds of jobs regularly available in the community. Then she chose similar positions in the hospital for training. Sometimes she would call the potential employer to say, "I'm training a person and will send them over when I think they're ready." In some instances, the job may be identified before the training even begins, as in one case when a printer said he would employ an individual if he could be trained elsewhere.

"We are raising people's expectations. This can lead to frustrations if successful graduates cannot find jobs."

One site supervisor in a demonstration hospital became discouraged with the efforts of other agencies in making outside job placements and tried to do it herself. She felt she was most familiar with the worker's abilities and had the time to be his advocate. In small programs, this may be fine. However, job placement should not detract from job evaluation and training, the key program function. If the placement cannot be made while the person is still in training, it should be the responsibility of the designated job placement agency to maintain frequent contact with the individual until a position can be found.

Some of the people who achieved employment outcomes are described in the illustrations:

Dennis, 22, Competitive Full-time Employment in Hospital

Dennis, age 22, has a primary diagnosis of mental retardation. He started the program living at home with family and continues even after being competitively employed in the hospital. Dennis began in a sheltered industry and was referred to the Hospital Industries Program, where he remained for thirteen months in food services. He is currently employed on a full time basis in that division and continues to function successfully.

Lucy, 31, Competitive Full-time Employment in Hospital

Lucy, age 31, had a primary diagnosis of phlebitis and a secondary diagnosis of learning disabilities. In her part-time employment prior to coming to Hospital Industries, she was terminated because her disability prevented her from performing her job functions.

After corrective surgery and medication, Lucy was referred to Hospital Industries for six months of evaluation and training. During that time, Lucy performed extremely well and was noticed immediately by food service supervisors. She was hired part-time in food service and is currently working full-time Monday through Friday. Prior to the program, she lived with her husband in an apartment. At present Lucy is divorced, supporting herself, and living alone in an apartment.

Linwood, 27, Part-time Employment in Hospital

Linwood, 27, has a primary diagnosis of mental retardation with a secondary psychiatric diagnosis. Linwood spent many years in VR training or OJT positions. When he started the program he was living in a supervised apartment. He began part-time in the food service division working a Tuesday through Saturday shift. He progressed through the program at a moderate pace and was hired by the hospital on a first shift part-time weekend basis. He continues to live in the supervised apartment and is called in on a more regular basis, averaging about thirty hours of employment a week.

Bobby, 30, Long-term Sheltered Employment

Bobby, 30, has a primary disability of mental retardation. In New York, before moving to Maine, Bobby had been in a sheltered workshop for nine years. The Maine Bureau of Rehabilitation referred him to a sheltered workshop for vocational evaluation. It found that Bobby would need close supervision and extra time to train for repetitive tasks. He started HIP under the evaluation certificate in the food service division, doing extremely well in terms of attendance and punctuality. After six months, Bobby's productivity was just about 50 percent and he was placed in the training phase. Two months later a death occurred in his family causing Bobby to regress. He had to leave the program, his behavior becoming erratic and unpredictable.

Six months after Bobby's release, he was accepted back but found unable to work with the supervision provided. He was referred to the local sheltered workshop and continues full-time employment there.

Peggy, 29, Part-time Employment in Hospital

Peggy, 29, has a diagnosis of mental retardation. She lives in an apartment with her husband and child as she did when she started the program. She began in the housekeeping division on a part-time basis Saturday and Sunday and remained in the program for six months. At the end of this time, housekeeping was pleased with her productivity and hired her on a permanent part-time basis where she is scheduled for sixteen hours per week and is called in on holidays and at other times when needed.

Donald, early 20's, Competitive Employment in Community

Donald has a primary diagnosis of mental retardation with a secondary psychiatric diagnosis. He came from a sheltered workshop facility where he was referred to HIP by the vocational rehabilitation counselor. Donald was in the HIP food service program for a ten month period and did extremely well. He is still living with his family, even after being hired full-time by a local restaurant.

Rejoicing in Fortuitous Outcomes

When evaluation and training occur in real work settings whose primary functions are other than evaluation and training, many positive yet unplanned outcomes can occur. That is because Hospital Industries models a behavior of cooperation which has obvious applicability to other situations. Many such fortuitous outcomes did take place in the demonstration sites which are worth noting.

Student Internship—A vocational technical institute in one community was approached to see if it could provide students to assist in supervising the trainees on the job. The institute complied and granted the students credit for their experience. In return, the Hospital Industries site supervisor provided guidance and practical training to the student. This process has been reviewed by the US Department of Labor, Northeast Office, Boston, Massachusetts.

Enhanced Inter-agency Coordination—At the state mental health institution, an advisory committee was formed to help guide the project and deal with many other issues of importance to mentally disabled people. The committee brought together representatives from vocational education, rehabilitation, mental health and the state development disabilities council. Besides evaluation and training, this interagency committee worked on issues such as housing, access to community services, and transportation.

In another state, daytime group home supervision has been developed as a result of the project. In the past, group homes were closed during the day when residents were involved with outside activities. When the trainees moved to second shift, they were home during the day and required supervision.

Disabled Volunteer Employed—In one hospital, a disabled person had been providing volunteer service for a long period of time before Hospital Industries began. HIP enrolled the individual into the job training program, where she receives wages and has hopes for longer term employment in the facility. In another site hospital, employees who had to leave for mental health reasons were permitted to use HIP for an early return to work as part of therapy.

Hospital Education—In one site, the Personnel and Employee Health departments became involved with the trainees and themselves received valuable education about this client group. Their interest led to the development of training that has been used with other hospital staff.

Transferability of Model—During the course of the demonstration, a personnel director of a participating hospital was describing the project to his counterpart in a local residential college. The college subsequently requested that a presentation be made and that the college itself be considered as a job training site. Instead of human service workers talking about the merits of this population, the hospital became the advocate.

Summary

Overall, the design of the project contributes to public/private sector communication and cooperation. It stimulates ideas about how to set up job training opportunities for clients with specialized career aspirations. It helps people to ask themselves, are there companies which already have the equipment, the personnel, the overhead from which an agency can purchase training even if the company has no commitment to hire. For example, one client wanted to learn specialized four-color printing. An employer was interested in hiring this person if he could arrive already trained. The site supervisor arranged for a local hospital to provide the training in its print shop and the person later was hired by the private printer. It also facilitates cooperation among public and private agencies which have common goals and mandates, but lack the day-to-day opportunity to work cooperatively. The HIP supervisor, jointly funded by three agencies, provides a natural link among them.

In addition, the HIP site supervisor has been tangibly able to assist other handicapped people employed in the hospital who are not program enrollees. In all the demonstration sites s/he has provided counseling, job evaluations, and referrals to community agencies, as examples. The following section builds upon these fortuitous outcomes by outlining the financial costs and benefits of the program. It explains how to go about collecting information for a cost benefit analysis and describes what the Maine Medical Center and the other hospitals found.

Part III

Assessing Program Effectiveness

"From my point of view as an administrator, the program is effective. It is clear that with non-traditional training options, such as Hospital Industries, we are able to efficiently serve more people with the limited dollars we have."

In this part...

- Cost-benefit Analysis
- Cost effectiveness in Relation to Alternative Job Training Programs
- Procedures for Setting up Your Own Analysis

If the benefits of a given program outweigh the costs, then the program can be said to be worthwhile. There is no quetion that the individuals and their families, the hospitals and American taxpayers benefit intrinsically from Hospital Industries, but assigning a dollar value to those benefits is a bit more difficult.

Cost-benefit analysis is the principal analytical framework used to evaluate public expenditures (Stokey and Zeckhauser). It requires a systematic enumeration of all benefits and all costs, both tangible and intangible, which accrue to members of society as a result of a particular project. The concept was first employed in the 1930s to evaluate water resource projects but came into more widespread use after World War II.

Some public policy analysts use cost-benefit analysis in the same way that private businesses use profit and loss statements, by evaluating the bottom line in monetary terms. Others use the technique more broadly by assessing a wider spectrum of benefits and costs, including those for which dollar values cannot be easily attached.

In the Hospital Industries Project, cost-benefit can be measured in at least three ways: the first is the cost and benefits that accrue to the individual for participating in relation to whatever he or she was doing before. The second is the cost and benefit to the hospital for employing an alternative workforce. The third is the cost effectiveness of HIP in relation to other job training and sheltered employment programs.

This part of the handbook contains three sections:

- Cost-benefit analysis
- Cost effectiveness analysis
- Procedures for setting up an analysis

The cost benefit analysis was performed in relation to individuals in their second year since participating in HIP for which income data was available. The cost effectiveness analysis reviews HIP in relation to other job training approaches. The third section describes forms and procedures needed to perform cost benefit analyses in other hospital.

Costs and Benefits to the Individual and Employer

As the individual earns an income and becomes more self-sufficient, his or her self esteem is greatly improved. Simultaneously, the individual begins to pay into the system rather than to receive such forms of support as Supplemental Security Income (SSI), Social Security Disability Income (SSDI), Medicare, and Medicaid. (This refers to individuals earning above the Social Security income base, explained below.)

The employer benefits from the dependability and conscientiousness of the disabled worker, especially since job performance is normally the same or better than the average employee. Because a part-time worker is often more efficient than a full-time worker, and because the Department of Labor (DOL) certificates allow the hospital to pay less than minimum wage for a period of time, the hospital department is able to work within the same budget and possibly even save money. The hospital also benefits from a public relations standpoint. For the marketing and community-oriented institution, the publicity that may result can be very important in improving its image in the community's eyes. This boost certainly cannot hurt and may even improve the hospital's market share.

These benefits are subjective, however, and cannot be measured easily. For a more concrete analysis, several mechanisms have been developed to assemble financial information and to measure the costs and benefits.

All the figures used in this analysis are based on the Hospital Industries Project for the year ending September 30, 1983, at Maine Medical Center (MMC) in Portland, Maine, a 533 bed not-for-profit tertiary care referral center for the Maine and New Hampshire areas. HIP was instituted initially in the food service and housekeeping departments. Because of the transitional nature of the program and its people, the analysis is based upon the program's second year, the 25 clients who were in various stages of their training and evaluation and the four who were hired that year.

The net benefit to the individual can be expressed as gross wages earned, plus fringe benefits, taxes paid, minus the reduction in the SSI benefits that the individual had been previously receiving. The payroll and personnel offices are the main sources of such earnings, taxes and

Social Security withheld, and the employee's (as well as the hospital's) portion of fringe benefits. It is more difficult to determine exactly how much less SSI and/or other benefits the individual received before and after entering the program, but is an important factor in the analysis. Because the information is protected under the Privacy Act, the amounts must be estimated and computed on an average basis, therefore sacrificing some accuracy.

Even though there is a 9-month trial work period during which the individual remains on the Social Security rolls and continues to receive checks, the amount of the check is affected after a certain income level is reached, depending on the circumstances of each individual. During the trial work period, SSI is not affected. Afterwards, however, for ever $2 over $65 per month of earned income, the SSI check is reduced by $1 until earned income reaches $300, at which time the individual becomes ineligible for SSI.

For the 25 people included in the analysis, the primary cost to them was a reduction in SSI benefits received. Table I shows the earnings history of each of these people during their second year of participation. It shows that the total reduction in SSI benefits received for the group was $3315.

Benefits are reduced based on a formula which is applied each month against earnings. If an individual receives more than $65 per month the formula subtracts one-half the excess from the SSI benefit. If the net figure from this calculation exceeds $300, no SSI is received. If it is less than $300, the figure is divided in half to represent the reduction taken. This figure of $3315 lost in SSI benefits can be analyzed in relation to the gross wages paid, $17,193, less taxes withheld, $1832, plus fringe benefits paid, $1841. Thus the net earnings of the group was $17,202. Subtracting the Social Security benefits lost, the net earnings gain was $13,887.

Maine Medical — 25 Workers

Wages paid	$17,193
Less taxes withheld	1,832
Plus fringe benefits paid	1,841
Less reduction in SSI benefits	3,315
Net Earnings Gain	$13,887

While clients and families often express concern about the federal benefits lost as a result of returning to work, this analysis illustrates that the gains to the individual exceeded the loss by over 400 percent.

Table I.

Social Security Income (SSI) Reduced

(1) Employee No.	(2) No. mos. worked	(3) Avg. SSI/mo.	(4) Avg. Earned/mo.	(5) Less Exclusion	(6) Remainder (4)-(5)	(7) Remainder 2	(8) Reduction in SSI/mo (6)-(7)	(9) Reduction for year (8)x(2)
1*	8	$314	$ 99	$65	$34	$17	$17	$136
2	8	314	124	65	59	30	29	232
3	6	—	142	65	—	—	—	—
4	9	—	141	65	—	—	—	—
5	7	—	106	65	—	—	—	—
6	8	—	305	305	—	—	—	—
7*	1	—	170	65	—	—	—	—
8*	12	—	129	65	—	—	—	—
9	10	314	151	65	86	43	43	430
10*	5	314	263	65	198	99	99	495
11	8	314	130	65	65	32	33	264
12	9	—	141	65	—	—	—	—
13	3	—	82	65	—	—	—	—
14	—	—	13	65	—	—	—	—
15	2	314	135	65	70	35	35	70
16	1	—	65	65	—	—	—	—
17	3	—	28	65	—	—	—	—
18	4	—	99	65	—	—	—	—
19	4	—	71	65	—	—	—	—
20	1	314	116	65	51	26	25	25
21	2	314	266	65	201	101	100	200
22	3	314	124	65	59	30	20	98
23	2	314	211	65	146	73	73	146
24	2	—	173	65	—	—	—	—
25	2	314	54	65	—	—	—	—
					Total Reduction in Benefits			$3315

*Hired by MMC

Beyond the evaluation and training period reflected in the above, four individuals were hired on a regular basis by the Maine Medical Center. During the 52-week period of their regular employment the average time worked per week ranged from 13.9 hours to 26.6 hours and their wages ranged from $2.18 per hour to $4.66 per hour. As Table II illustrates, the total wages paid to these individuals for the first year after evaluation and training equalled $16,116 or an average of $4,029 per person. Fringe benefits paid to the one individual who worked more than 20 hours per week was $465 with a total earnings and fringe gain for all four of $16,581.

Table II.
Average Earnings Gain for People Hired Full-time

Avg. Hrs/Wk.	x	52 wks.	x	Rate/Hr.	=	Total Wages Earned
13.92		52		$2.18		$1,578
19.54		52		3.96		4,023
19.18		52		4.66		4,648
26.61		52		4.24		5,867

Total wages paid during first year after hire	$16,116
Average earnings gain per client	4,029
Fringe benefits*	465
Average total earnings gain	$4,494

**Paid to those working 20 or more hours/week.*

Net Hospital costs equal administrative salaries and client wages paid less cost recoveries and value of work performed. Table III depicts hospital costs and recoveries. Costs of all administrative and supervisory salaries needed to operate the program was $51,700. These included the project director's salary and the site supervisor's cost, expressed as a weekly charge per client for purposes of billing the cooperative agencies. While a project director was considered necessary in the start up year, when all the procedures had to be developed, new programs could certainly get along with a site supervisor only following the guidelines suggested in this book.

Table III.

Hospital Costs and Recoveries

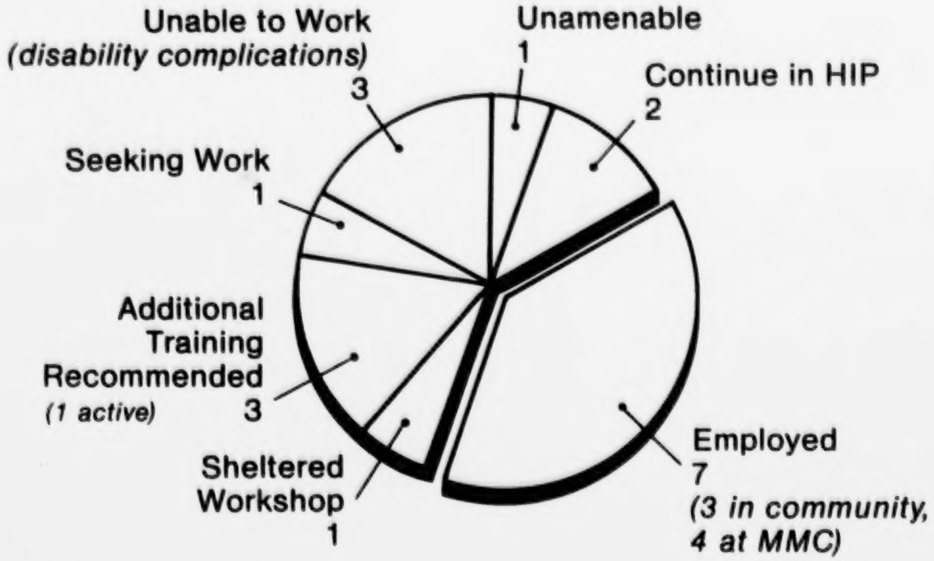
Costs:		
Director's salary & benefits	$19,200	
Supervisor salaries and related expenses ($65/client/week)	32,500	
Total Administrative Costs		$51,700
Client wages paid	$17,194	
Fringe benefits	1,841	
Total Paid to Clients		$19,035
Total Cost to Hospital		$70,735
Less		
Recoveries:		
Director's salary & benefits	$19,200	
25 clients ^{9} $65/client/week (20 wks)	32,500	
Total Costs Recovered		($51,700)
TOTAL COST TO HOSPITAL		$19,035
(Wages paid to clients recovered by work done)		

The other cost to the hospital was the wages and fringe benefits paid to the trainees, a total of $19,035. Recoveries to the hospital equalled $51,700 for administrative and training costs which was the amount reimbursed from the cooperating state agencies and the equivalent of $19,035 in work performed on the part of the trainee. This is work that the hospital would have had to pay for anyway.

Thus, the benefit to the hospital equalled the cost. There was no surcharge for substituting one work group for another.

In addition, the hospital gained a labor pool from which to draw applicants. Rarely if ever does a department supervisor have the opportunity to observe potential employees, learn their strengths and weaknesses, and handpick those whom they want. During the particular period under study, four people were chosen to work as regular hospital employees. Many more have been hired since. The hospital avoided all recruitment and training costs normally associated with hiring new employees.

The following pie chart shows program status for Maine Medical trainees in the second year. Seven out of eighteen, or 38 percent, were employed competitively while an additional person was employed in a sheltered workshop. Four people, or 22 percent, were either unamenable or unable to work. The balance was continuing in HIP or seeking employment or additional training. Thus, the program had clearly positive outcomes for 38 percent of the people and inconsequential outcomes for only 22 percent (those who were unamenable or unable to work). The rest were still actively pursuing training or employment.



CURRENT STATUS
Second Year

Cost Effectiveness in Relation to Alternative Job Training

A study of alternative job training programs in Maine revealed that the cost of Hospital Industries charged to state agencies on a client per week basis was less than 40 percent of the sheltered workshop cost.

Expressed on a yearly basis, state agencies expect to pay about $6,000 per year per slot in a sheltered workshop (about $120 per week) whereas in Hospital Industries for $6,000 they can receive two to five slots at any one time. One reason for the lower pricetag is that the hospital absorbs all overhead and administrative costs. The physical plant, utilities, insurance, payroll are all provided. Sheltered workshops need to purchase these. With Hospital Industries the one additional supervisor is all that needs payment.

The effectiveness of the training also compares favorably in Hospital Industries. The figures above show that in the demonstration sites, 44 percent moved on to further training or employment. In sheltered workshops, approximately 20 percent of the people in evaluation or training are placed in competitive employment outside the workshop. Only 12 percent of the regular program workshop clients are placed (US DOL, 1977).

In terms of earnings by participants, the project showed that people earn more in Hospital Industries than sheltered workshops. The 1976 DOL Sheltered Workshop Study provided the following earnings figures. Assuming a 5 percent increase per year between 1976 and 1983, we show the adjusted 1983 earnings in workshops and in HIP.

Hourly Earnings in Workshop and HIP

	Workshop 1976	Adjusted Workshop 1983	HIP
Work Activities Center	$ .43	.59	NA
Regular Workshop	1.56	2.19	3.76
Evaluation and Training Participants	.82	1.15	1.81

At Maine Medical Center, people in evaluation and training averaged $1.81 per hour compared to $1.15 in sheltered workshops and those who were employed beyond the project earned $3.76 per hour, 58 percent more than the $2.19 in workshops.

In terms of net benefits to taxpayers, Hospital Industries actually saves rather than costs money. Benefits to taxpayers equal reduced on-the-job training costs, reduced SSI payments made and increased taxes paid into the economy. With about 5 million unemployed disabled receiving minimum support by welfare and Social Security programs of $5,000 per year, taxpayers pay about $25 billion per year. If these 5 million were employed at minimum wage, earnings of $35 billion would be generated, thus potentially adding $60 billion to the economy.

Tax Savings	$25 billion
& Wages Earned	+ $35 billion
Additional dollars in economy	$60 billion

Because the overall job training cost to the taxpayer is less in the hospital setting and because the individuals are paying taxes into the system and contributing to their own Social Security checks indirectly, taxpayers wind up saving substantial money for each person successfully trained.

Setting Up Your Own Analysis

In trying to do a cost benefit analysis in retrospect, the demonstration sites found the legwork to be time consuming and occasionally frustrating. Consequently, Maine Medical Center has developed some aids for the ongoing collection of financial and cost information: an intake form and quarterly earnings report. The proper adherence to and completion of these forms will save time backtracking when the information is desired.

Intake Form

The amount of reduction in public assistance, either through income from SSI and SSDI or health coverage under Medicare and Medicaid, can be estimated by information given by the clients themselves on an intake form, illustrated in Exhibit 8 in a previous section. The importance of completing the financial section, both income sources and benefits, should be stressed as this information will serve as a basis of comparison in cost-benefit analysis. Even type of housing is important because it often affects the amount of public assistance available to the individual.

As people are terminated, because they require alternative training, are unable to continue working, or have been placed in jobs, it will be easier to collect follow-up information if the program has this baseline data.

Quarterly Earnings Report

For an ongoing record of cost to the hospital, the Quarterly Earnings Report, Exhibit 12, contributes to the data for analysis of gross wages, taxes and FICA withheld, hours per week, wage rate, and any changes in productivity and pay status. The site supervisor should work with payroll to assure that the form is completed quarterly for all trainees. The payroll department is the most accurate and thorough source of this information.

This completes all the data needed to obtain the net earnings gain, total taxes paid, the cost per client trained and per client hired, and total FTEs worked.

The actual analysis of cost and benefits may consist of a review of the earnings history of each individual one year into the program with a comparison of his or her prior benefits and earnings.

Hospitals can also use the information to compare reduction in federal assistance with money now paid into the system in the form of taxes.

Exhibit 12

Sample Hospital Industries Quarterly Earnings Report

SITE:

CALENDAR QUARTER ENDED:

NAME	Dept*	PREVAILING WAGE	% PROD.	AVG. HRS/WEEK	START (M-D-Y)	PAY CHANGES (M-D-Y)	TOTAL FOR QUARTER				TERMINATION OR CURRENT STATUS
							GROSS	FICA	FED	STATE	

*DI Dietary HK Housekeeping LN Laundry etc.

Summary

In this part we have illustrated the financial benefits of the Hospital Industries approach to the individual, the hospital, and the taxpayer. The greatest benefit, however, can be expressed by the people themselves. One trainee sums it up this way:

"If I didn't have this job, I don't know what I would do. I'm learning to keep this job so other people will hire people like me. I think that all companies should give the handicapped a chance of working because it would prove to other people that they are good workers."

Afterword

In the Preface we stated that the demonstration project took place in five hospitals selected to reflect diversity in organization and characteristics: urban and rural, union and non-union, private and public. This section comments briefly on the implications of these differences for implementing the Hospital Industries model. Because each variation in organization was represented by only one or two hospitals, the authors are concerned about making generalizations. Therefore the comments should be viewed more as impressions than definitive pronouncements.

Urban and Rural

Differences between the urban and rural hospitals centered upon two areas: the supportive services available to the clients while they were participating in HIP and the job opportunities available when they were finished with evaluation and training. In general the staff found it easier to function in urban areas where more opportunities abounded. However, their experience did not preclude effective operation in rural communities.

In urban areas there tend to be readily available services: transportation, other specialized job training programs, counseling services, housing, independent living programs. All these make it easier for people to partake in HIP. In their absence creative solutions must often be pursued.

Transportation can be viewed as a particularly intransient problem in rural areas. At one hospital the site supervisor reported, "On my first day on the job five caseworkers and two supervisors from local agencies met with me and said the project has been oversold in the community. They did not want it to work. Among other issues, transportation is too great an obstacle." The supervisor nearly resigned that day. Then she thought to herself, "If this doesn't work, at least I'm going to find out why." She concentrated her first weeks on building bridges, making friends, generally involving people. "I was able to turn the situation around," she reports.

This anecdote points to the natural suspicion that can exist in small, isolated communities. While the impact of a program like HIP may be greater there, administrators must be sensitive to people's territorial instincts. Keeping the community informed is vital.

In urban areas where many job training programs may exist, it is also important to become familiar with the community of professionals sharing similar goals. Creating a supportive rather than a competitive professional atmosphere will help promote the program's success.

In some rural areas greater effort is needed to inform community members directly about the program and referral protocol. Reported one worker, "We have found that around here families tend to take care of their disabled relatives and are unaware of new training developments and work opportunities."

One of the major frustrations in rural areas was the sense that Hospital Industries was training people for jobs that did not exist. In small communities it was sometimes more difficult to make placements. However, ingenuity can be used. For example, one site supervisor read the want ads. What jobs would be available for people to train for? Others tried to develop jobs through direct employer contact. Hospitals, schools, government and nursing homes were generally good places to look. Most communities have one or more of these and the skills needed are often compatible with what is taught in Hospital Industries.

Union and Non-union

Both kinds of facilities hold the potential for a Hospital Industries program. In a non-union setting the personnel department can advise on the appropriate hiring procedures. In a unionized hospital careful negotiations are required with both management and union. One strategy is to make Hospital Industries a project of the union itself. Another is to sell it as a job training program per se that would have relevance to the union only at the point that an individual is being considered for employment. A third is to find someone within the union with a disability and use him or her as an advocate. Often the number of people involved are so small that they pose no threat to the union. However, including union leadership early in any negotiations is bound to avoid future problems.

Public and Private

The public facility chosen for the demonstration was a veterans hospital with an inpatient rehabilitation unit directed by a physiatrist. Carrying the designation of a "comprehensive rehabilitation center," this unit afforded HIP staff support and invaluable assistance in receiving approval to initiate the program. However, the staff experienced frustration over the necessary approvals required within the facility. They spent considerable time attempting to understand the veterans administration system, its various divisions and the myriad of benefits already existing within the area of employment.

One issue was the financial disincentive for veterans to return to work if their disability was service connected. Our experience confirmed Trieschmann's (1980) finding that veterans with service- connected disabilities receive so much "free" income that they need not work or may not be able to afford to work at any but a well-paying job. Veterans with nonservice-connected disabilities, while receiving far lower incomes, experienced difficulty in getting access to services and frequently needed assistance in such areas as social security and the understanding of eligibility requirements.

A Hospital Industries Program operating in a federal veterans facility is bound by the regulations governing veterans affairs. One constraint, for example, is that the Office of Personnel Management does not allow payment of less than a GS 1 level. Without subminimum wage provisions, HIP could accept only the higher functioning individuals, limiting the effectiveness of the program. There were other areas in which federal red tape constrained the program's ability to function.

With the public state facility participating in HIP any impeding regulations could be altered more readily. For example, the hospital could open positions to HIP clients under special state code permitting temporary employment at less than minimum wage.

Another difference between the public and private hospitals was the referral and screening processes. The public facilities, which were also residential hospitals, gave preference to HIP candidates who themselves were residents of the hospital. However, because participants generally started at 25 percent of the prevailing wage there can be conflict between HIP and other patient employment programs operating in the facility which pay 100 percent. Participants need to be shown that the goal is long term employment rather than a short-term paycheck.

The condition of the equipment also differed. Private facilities tended to have more modern equipment which enhanced the job evaluation and training.

In summary, HIP can succeed in any of the hospitals used in the demonstration. The model, as currently configured, works particularly well in private non-profit hospitals. However, the demonstration sites only scratched the surface in exploring how hospitals can be used effectively. Invariably, from state to state and facility to facility, once people started experimenting with the approach they could find innovations which strengthened it. These innovations occurred on both the individual trainee and community levels. Each person receiving training possessed unique characteristics and posed interesting questions as to the best approach. People with histories of mental health problems wanted positions with higher status, secretaries rather than dishwashers. Sometimes just changing a job title, for example ward aide instead of housekeeper, helped. Creating unique training opportunities to fit particular interests was especially rewarding for hospital staff. Front line employees were given the opportunity to contribute in a very constructive way. In some cases their participation enhanced their own growth almost as much as that of the trainees'. On a community level Hospital Industries stimulated thinking about the job potential of the disabled, challenged traditional institutional approaches to employment, promoted interagency cooperation, helped to modify attitudes and pulled diverse groups together to a common end. What was critical in each community was the presence of one or more people willing to take the risk. If they adopted the attitude, this is something brand new, let's try it, then invariably good things resulted. Hospital Industries laid a foundation on which other approaches could be built. As one person observed, "Once facilities learned that the quality of work is what we're devoted to, they themselves started experimenting with innovative ideas."

Glossary

Aptitude. The probable level of future functional outcome that could be reached following maturation and/or training.

Assessment. A process of finding out the strengths and limitations of an individual in terms of optimal functional outcomes.

Discounting. Process of determining the present value of money to be earned at a time in the future using a given or required rate of return (e.g., 10%).

Developmental disability. According to the Rehabilitation, Comprehensive Services and Developmental Disabilities Amendments of 1978, (P.L. 95-602), a severe, chronic disability of a person which a) is attributable to a mental or physical impairment or a combination of mental and physical impairments, b) is manifested before the person attains age 22, c) is likely to continue indefinitely, d) results in substantial functional limitations in three or more of the following areas of major life activity: self-care, receptive and expressive language, learning mobility, self-direction, capacity for independent living, and economic self-sufficiency and, e) reflects the person's need for a combination and sequence of special, interdisciplinary, or generic care, treatment, or other services which are individually planned and coordinated.

Earned income. Money obtained from wages and benefits as opposed to unearned income such as public assistance, subsidies and interest.

Eligibility. Used in relation to vocational rehabilitation services, certification that a person is mentally or physically disabled, has a substantial handicap to employment, and could benefit in terms of independence and vocational abilities from vocational rehabilitation services.

Evaluation. Process of assessing an individual's capabilities against some criteria.

Feedback. Information provided to an individual about his functioning.

Follow-up. Data collected after services are provided.

FTE. Full time equivalent, usually 40 hours per week to 2080 hours per year.

Functional independence. The capacity for an individual to live in the community, despite severe disabilities, with or without work through physical and/or psychological support services.

Functional outcomes. Activities in which a person can engage on a regular basis and which require the use of time and strength; such activities may include competitive full-time employment, part-time employment or sheltered employment.

Functional outcome, optional. Highest functional level an individual can realize considering his economic, physical and social limitations.

Hospital Industries Program. An evaluation and training program in which hospitals are used as job sites to prepare disabled people for employment.

Handicapped individual. Disabled person whose condition imposes a perceived limit upon his employment potential.

Income maintenance. Financial aid required for economic sustenance; welfare and social security are examples.

Individual case record. Information obtained about a client prior to, during and after service is provided; includes social and work history, medical information, program plans and goals, services to be provided, signed reports, notations relating to performance and progress.

Interview. Communication between two or more people used for diagnosis, education, therapy, or just to gain information.

Referral Data. Information about an individual obtained from specialists, agencies and employers used to determine service eligibility; such documents as medical reports, vocational evaluations, psychometrics, and social service reports.

Job analysis. Systematic study of an occupation; assessment of what the worker does in relation to data, people and things.

Job bank. Computerized system developed by the Department of Labor which maintains an up-to-date listing of job vacancies available to the State Employment Service.

Job exploration. Process whereby individuals are exposed to work experiences and occupational information to help them decide what vocation to pursue.

Norms. Standard of achievement, including the median or average, as represented by the performance of a reference group.

Occupational information. Information relevant to employment such as definitions, conditions of employment and requirements; e.g., Department of Labor publications, job banks, job exploration systems and labor market surveys.

Rate of return. When there are comparative investment opportunities, the percent below which it would not pay to invest.

Referral source. The person, agency or facility that provides the name of a client for services.

Sheltered workshop. Traditionally a controlled and protected work environment for those who are unable to compete or function in the open job market.

Time study. Method of determining productivity or output based upon both quantitative and qualitative factors and evaluated against the performance of others.

Training environment. Setting in which person acquires job skills and competencies.

Vocation. What one does, grounded in interests, ability, needs and opportunities.

Vocational assessment. Determination of the strengths and limitations of an individual which facilitate or interfere with vocational outcomes.

Vocational evaluation. Process that systematically utilizes work as the focal point for assessment and vocational exploration; the process of observing behaviors and interpreting them against some criteria. Generally, medical, psychological, social, vocational, educational, cultural and economic data are considered.

Vocational evaluator. Individual responsible for conducting a vocational evaluation.

Work adjustment. Structured, closely supervised work experience designed to promote the acquisition of good work habits, to increase physical and emotional stamina, to enhance interpersonal relationships.

References

Developmental Evaluation Clinic, Children's Hospital, Boston, *Employment of Adults with Developmental Disabilities,* Massachusetts: Children's Hospital, 1985.

DuPont, E.I., *Equal to the Task,* Wilmington, Delaware: E.I. DuPont de Nemours & Company, 1982.

DuRand, Lance, *The Affirmative Industry,* Minnesota: Minnesota Diversified Industries, 1978.

Gold, M.W., "Vocational Habilitation for the Mentally Retarded," In N.R. Ellis (ed.), *International Review of Research in Mental Retardation,* Vol. 6 New York: Academic Press, 1973.

Greenleigh Associates, Inc., *The Role of Sheltered Workshops in the Rehabilitation of the Severely Handicapped. Executive Summary.* Report to Department of Health, Education and Welfare, Rehabilitation Services Administration, New York, 1975.

Jacobs, Angeline, Larsen, Judith, & Smith, Claudette, *Handbook for Job Placement of Mentally Retarded Workers,* Massachusetts: Ware Press, 1979.

Lustig, Paul, *Differential Use of the Work Situation in the Sheltered Workshop, Rehabilitation Literature,* Vol. 31 No. 2, February, 1970.

Lytel, Robert & Botterbusch, Carl, *Physical Demands Job Analysis: A New Approach,* Wisconsin: University of Wisconsin Materials Development Center, March, 1981.

Magee, James T., Fleming, Thomas J., Geletka, James R., "The New Wave in Rehabilitation: Projects with Industry," *American Rehabilitation,* March-April 1982, Vol. VII, #5.

Manpower Demonstration Research Corporation, *Supported Work for the Mentally Retarded: Launching the STETS Demonstration,* New York: 1982.

Pati, Gopal, & Morrison, Glenn, "Enabling the Disabled," *Harvard Business Review,* Massachusetts: July-August, 1982.

Peck, Charles, A., Appollini, Tony, Cooke, Thomas, "Rehabilitation Service for Americans with Mental Retardation: A Summary of Accomplishments in Research and Program Development," *Annual Review of*

Rehabilitation, New York: Springer Publishing Company, 1981.

Steinhauser, Larry, "Rehabilitation of the Handicapped — A Boon to Employers," *Risk Management,* September, 1978.

Trieschmann, R. *Spinal-cord injuries: Psychological, social and vocational adjustment,* New York: Pergammon Press, 1980.

U.S. Department of Labor, *A Guide to Job Analysis: A How-to Publication for Occupational Analysis,* Washington, D.C.: Division of Occupational Analysis, 1982.

U.S. Department of Labor, *Dictionary of Occupational Titles,* Fourth Edition, Washington, D.C.: U.S. Government Printing Office, 1977.

U.S. Department of Labor, *Sheltered Workshop Study, Workshop Survey,* Vol. 1, Washington, D.C.: U.S. Department of Labor, 1977.

Wehman, Paul, *Competitive Employment: New Horizons for Severely Disabled Individuals,* Baltimore, Maryland: Paul H. Brookes, 1981.

Whitehead, Claude, W., "Sheltered Workshops in the Decade Ahead: Work and Wages, or Welfare," *Vocational Rehabilitation of Severely Handicapped Persons,* Baltimore, Maryland: University Park Press, 1979.